SOUTHERN PACIFIC COMPANY

(PACIFIC LINES)

TIME TABLE

FOR THE

SAN JOAQUIN DIVISION

159

To Take Effect Sunday, January 15, 1939, at 12:01 A. M.

PACIFIC STANDARD TIME (120th MERIDIAN)

For the government and information of employes only.

L. B. McDONALD,
General Manager.

W. B. KIRKLAND,
Superintendent of Transportation.

L. U. MORRIS,
Assistant General Manager.

J. D. BRENNAN,
Superintendent.

FRESNO SUBDIVISION

	EASTWARD										Time Table No. 159		WESTWARD								
Capacity of Sidings in Car Lengths	SECOND CLASS			FIRST CLASS						Distance from San Francisco	January 15, 1939	Distance from Bakersfield	FIRST CLASS							THIRD CLASS	
	782	400		56	346	52	58	60	26				25	59	55	345	51	57		783	
	Freight	Freight		Tehachapi	Motor	San Joaquin	Sequoia	West Coast	Owl		STATIONS		Owl	West Coast	Tehachapi	Motor	San Joaquin	Sequoia		Freight	
	Leave Daily	Leave Daily		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		Arrive Daily	
WOP Yard										201.8	FRESNO YARD 1.4	111.1									
										203.2	F. T. Co. Crossing 2.3	109.7									
BKWOTYP Yard	1.55 PM	4.20 AM		8.00 PM		1.50 PM	6.50 AM	12.35 AM	12.05 AM	205.5	TO-R FRESNO 3.6	107.4	s 2.40 AM	s 4.00 AM	s 7.30 AM		s 3.45 PM	s 10.00 PM		1.20 PM	
I P	2.05	4.30		8.10		2.00	7.00	12.45	12.15	209.1	TO CALWA TOWER A. T. & S. F. Crossing 1.3	103.8	2.30	3.50	7.20		3.35	9.48		1.10	
No Siding P				f			s			210.4	MALAGA 4.7	102.5			f						
118 P	2.15	4.40		f 8.20			s **7.08**			215.1	TO FOWLER 5.6	97.8			s **7.08**		3.26	f 9.39		12.57	
125 Yard WP	2.25	4.50		s 8.30		f 2.14	s 7.20	12.57	f 12.28	220.7	TO SELMA 4.9	92.2	f 2.14	3.34	s 6.58		f 3.17	s 9.31		12.47	
108 Yard WP	2.35	5.00		s 8.40		f 2.21	s 7.30	1.02	12.34	225.6	TO KINGSBURG 5.7	87.3	2.05	3.27	s 6.48		f 3.07	s 9.22		12.37	
106 P	2.44	5.09		f 8.48		2.28	7.37	1.08	12.41	231.3	TRAVER 2.4	81.6	1.58	3.21	f 6.38		2.59	9.13		12.28	
60 P	**2.56**			8.51			7.40	1.11	12.44	233.7	CROSS 5.4	79.2	1.55	3.18	6.35		**2.56**	9.10			
94 WYP Yard	3.04	5.21		s **9.00**		s **2.46**	s 7.47 AM	1.17	12.50	239.1	TO-R GOSHEN JCT. 6.5	73.8	1.48	3.12	s 6.25		s **2.46**	**9.00 PM**		12.16	
59 P	3.14	5.31		f 9.13		2.53		1.24	12.58	245.6	TAGUS 4.1	67.3	1.40	3.05	6.02		2.38			12.06 PM	
										249.7	TO TULARE TOWER A. T. & S. F. Crossing 0.3	63.2									
89 Yard P	3.21	**5.40**		s 9.20		s 3.02		**1.30**	s 1.05	250.0	TULARE 5.8	62.9	s **1.30**	2.58	s **5.40**		s 2.33			11.57 AM	
59 P	3.30	5.58		9.40		3.09		1.39	**1.16**	255.8	OCTOL 4.6	57.1	**1.16**	2.51	5.22		2.25			11.47	
83 WP	3.42	6.05		s 9.55		3.14		1.45	1.25	260.4	TO TIPTON 6.4	52.5	1.11	2.46	s 5.12		2.20			11.40	
94 P	3.52	6.15		s 10.05		3.21		1.52	1.32	266.8	TO PIXLEY 5.6	46.1	1.04	2.39	s 5.02		2.13			11.22	
83 P		6.22		f 10.15		3.27		1.59	1.38	272.4	TO EARLIMART 4.1	40.5	12.57	2.33	s 4.52		2.07				
59 P	4.07	6.30		10.21		3.31		2.04	1.43	276.5	RADNOR 4.2	36.4	12.52	2.28	4.42		2.03			11.07	
82 Yard WP	4.14	6.37		s 10.30		s 3.39		2.09	1.50	280.7	TO DELANO 6.3	32.2	f 12.47	2.23	s 4.37		s 1.58			11.00	
59 P	4.24	6.47		s 10.40		3.47		**2.16**	1.58	287.0	TO Mc FARLAND 5.6	25.9	12.40	**2.16**	s 4.26		1.50			10.50	
79 KWTP	4.35	**7.00**		f 10.49	10.32 PM	3.54		2.26	**2.09**	292.6	TO-R FAMOSO 3.3	20.3	12.34	**2.09**	f 4.15	s **7.00 AM**	1.44			10.40	
59 P	4.40	7.05		10.53	f 10.38	3.58		2.30	2.14	295.9	SLATER 4.6	17.0	12.30	2.05	4.10		1.40			10.35	
82 P	4.47	7.12		10.59	f 10.44	4.05		2.35	2.19	300.5	LERDO 2.5	12.4	12.25	2.00	4.05	f 6.51	1.35			10.28	
90 P	4.51	7.16		11.02	10.47	4.08		2.38	2.23	303.0	PROSPERO 2.8	9.9	12.22	1.57	4.02	6.48	1.32			10.24	
59 P	4.56	7.21		11.06	f 10.51	4.11		2.41	2.26	305.8	SACO 2.8	7.1			3.58	6.44	1.29			10.19	
80 YP	5.01	7.26		11.10	10.55	4.15		2.45	2.30	308.6	R OIL JCT. 2.5	4.3	12.15	1.50	3.55	f 6.40	1.26			10.14	
No Siding P										311.1	NOME 1.8	1.8									
Yard BKWOTYP	5.15 PM	7.40 AM		s 11.20 PM	s 11.05 PM	s 4.25 PM		s 2.55 AM	s 2.40 AM	312.9	TO-R BAKERSFIELD	0.0	12.05 AM	1.40 AM	3.45 AM	6.30 AM	1.16 PM			10.00 AM	
	Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		(111.1)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		Leave Daily	
	(3.20) 32.22	(3.20) 32.22		(3.20) 32.22	(0.33) 36.90	(2.35) 41.57	(0.57) 35.36	(2.20) 46.02	(2.35) 41.57		...............Time over District............... ....Average Speed per Hour..........		(2.35) 41.57	(2.20) 46.02	(3.45) 28.64	(0.30) 40.60	(2.29) 43.24	(1.00) 33.60		(3.20) 32.22	

Double Track

A. B. S.

Schedule time and train orders for eastward trains at Calwa Tower apply at end of double track, 360 feet west of the tower.
Schedule time and train orders for eastward trains at Famoso apply at junction switch of Porterville Line.
Schedule time and train orders for trains at Oil Jct. apply at crossover switch just west of Signal 3086.

Rule S-72 Exception; No. 56 is superior to No. 57.

ADDITIONAL STATIONS:

Muscatel	200.2
Calwa	208.3
Winedale (Spur)	222.8
Midvalley (Spur)	243.4
Alfac (Spur)	262.3
Quail (Spur)	263.7
Vinland (Spur)	284.5

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE REVENUE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)	Frequency
60	Selma	Discharge		Stockton	Daily
60	Tulare	Discharge		Stockton	Daily
60	Delano	Discharge		Stockton	Daily
56	Any Station	Discharge		Delano	Daily
55	Any Station	Discharge		Los Angeles	Daily
52	Any Station	Discharge		Ogden	Daily
26	Delano	Receive & Discharge	Los Angeles	Tracy	Daily
59	Delano	Receive	Stockton		Daily
59	Tulare	Receive	Stockton		Daily

FRESNO SUBDIVISION

EASTWARD — **WESTWARD**

Time Table No. 159

January 15, 1939

	FIRST CLASS							FIRST CLASS	
Capacity of Sidings in Car Lengths	346 Motor Leave Daily	58 Sequoia Leave Daily	Distance from San Francisco			STATIONS	Distance from Famoso	345 Motor Arrive Daily	57 Sequoia Arrive Daily
BKWOTYP Yard	7.15PM		205.5		TO-R	FRESNO	104.3	s 10.20AM	
						1.5			
I			207.0		TO	SUNMAID TOWER A. T. & S. F. Crossing	102.8		
						1.5			
	7.26		208.5			BLOSSOMA	101.3	f 10.08	
						3.3			
19 P	7.30		211.8			BUTLER	98.0	f 10.03	
						1.2			
PY			213.0			LOCANS	96.8	f	
						1.5			
60 P	7.34		214.5			IVESTA	95.3	f 9.59	
						1.4			
77 P	f 7.36		215.9			CLOTHO	93.9	f 9.56	
						3.9			
90 Yard WP	s 7.44		219.8		TO	SANGER	90.0	s 9.50	
						3.0			
14	f 7.48		222.8			TARN	87.0	f 9.42	
						2.5			
P	f 7.52		225.3			FARGO	84.5	f 9.38	
						2.6			
P	f 7.56		227.9			LACJAO	81.9	f 9.34	
						0.1			
			228.0			A. T. & S. F. Crossing (Stop)	81.8		
						1.9			
85 Yard P	s 8.02		229.9		TO	REEDLEY	79.9	s 9.28	
						5.1			
63 Yard WP	s 8.11		235.0		TO	DINUBA	74.8	s 9.18	
						2.2			
	f		237.2			SMYRNA	72.6	f	
						2.4			
23 P	f 8.18		239.6			MONSON	70.2	f 9.08	
						4.0			
			243.6			A. T. & S. F. Crossing (Stop)	66.2		
						2.8			
24 P	8.30		246.4			TAURUSA	63.4	f 8.56	
						3.0			
21	s 8.37		249.4		TO	IVANHOE	60.4	s 8.51	
						2.8			
P	f 8.41		252.2			ROCHE	57.6	f 8.46	
						0.9			
24 P	8.43		253.1			CAPLIN	56.7	f 8.44	
						4.3			
74 KWYP Yard	s 8.55	8.35AM	257.4	Block Signals	TO-R	EXETER	52.4	s 8.35	s 7.50PM
						3.1			
13	f 9.00	8.45	260.5			BURR	49.3	8.25	7.44
						3.8			
124 P Yard	s 9.08	s 8.53	264.3		TO	LINDSAY	45.5	s 8.20	s 7.38
						4.3			
38 P	s 9.15	s 9.00	268.6		TO	STRATHMORE	41.2	s 8.10	f 7.28
						2.3			
16	f		270.9			ZANTE	38.9		
						3.5			
20 P	s 9.30	s 9.10	274.4			PORTERVILLE	35.4	s 8.00	s 7.20
						0.4			
42 BKWYP Yard	9.33	9.25AM	274.8		TO-R	PORTERVILLE-OLIVE ST.	35.0	7.57	7.10PM
						1.7			
19	9.36		276.5			PONCA	33.3	7.54	
						1.5			
25	f		278.0			LOIS	31.8	f	
						4.6			
23 P	s 9.46		282.6		TO	TERRA BELLA	27.2	f 7.45	
						4.5			
69 KP	s 9.55		287.1		TO-R	DUCOR	22.7	f 7.38	
						2.9			
23 P	f 10.00		290.0			ORRIS	19.8	f 7.32	
						1.5			
Spur	f		291.5			VESTAL	18.3	f	
						3.4			
67 YP	f 10.07		294.9			RICHGROVE	14.9	f 7.25	
						4.1			
24 P	f 10.13		299.0			JASMIN	10.8	f 7.19	
						10.8			
KWTP	s 10.30PM		309.8		TO-R	FAMOSO	0.0	7.03AM	
						(104.3)			
	Arrive Daily	Arrive Daily						Leave Daily	Leave Daily
	(3.15) 32.09	(0.50) 20.88				Time over District Average Speed per Hour		(3.17) 31.76	(0.40) 26.10

ADDITIONAL STATIONS:

Goldleaf	209.9	Efco (Spur)	227.6
Eshel (Spur)	210.6	Dorsey (Spur)	250.8
Reka	221.0	Lort (Spur)	254.0
Rusconi (Spur)	221.8	Vance	262.8
Uva (Spur)	227.1	Stout (Spur)	265.8
		Lisko (Spur)	272.2
		Quality	295.9

No. 57 head in at east end of siding at Exeter and use siding to junction of Visalia Branch.

FRESNO SUBDIVISION

EASTWARD — **WESTWARD**

Time Table No. 159

January 15, 1939

Success Branch

Capacity of Sidings in Car Lengths	Distance from San Francisco		STATIONS	Distance from Clavicle
Yard 42 BKWYP	274.8	TO-R	PORTERVILLE-OLIVE ST.	13.3
			0.8	
	275.6		A. T & S. F. CROSSING (Stop)	12.5
			3.0	
	278.6		PERNU JCT.	9.5
			1.4	
21	280.0		WORTH	8.1
			2.4	
32	282.4		SUCCESS	5.7
			5.7	
6	288.1		CLAVICLE	0.0
			(13.3)	

Time over District

Average speed per hour

FRESNO SUBDIVISION

EASTWARD — **WESTWARD**

Time Table No. 159

January 15, 1939

Pernu Branch

Capacity of Sidings in Car Lengths	Distance from San Francisco	STATIONS	Distance from Pernu
	278.6	PERNU JCT.	1.3
		0.7	
Spur	279.3	TANDY	0.6
		0.6	
Spur	279.9	PERNU	0.0
		(1.3)	

Time over District

Average speed per hour

FRESNO SUBDIVISION

EASTWARD — **WESTWARD**

Time Table No. 159

January 15, 1939

Richgrove Branch

Capacity of Sidings in Car Lengths	Distance from San Francisco	STATIONS	Distance from Jovista
67	294.9	RICHGROVE	4.1
		2.7	
50	297.6	TROCHA	1.4
		1.4	
40	299.0	JOVISTA	0.0
		(4.1)	

Time over District

Average speed per hour

TEHACHAPI SUBDIVISION

Capacity of Sidings in Car Lengths	EASTWARD										Distance from San Francisco		Time Table No. 159 January 15, 1939		Distance from Mojave	WESTWARD								
	SECOND CLASS				FIRST CLASS											FIRST CLASS						THIRD CLASS		
	816	814	812	810	56	2	52	24	60	26						55	9	51	23	25	59	811	813	815
	Freight	Freight	Freight	Freight	Tehachapi	Santa Fe Passenger	San Joaquin	Santa Fe Passenger	West Coast	Owl						Tehachapi	Santa Fe Passenger	San Joaquin	Santa Fe Passenger	Owl	West Coast	Freight	Freight	Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			STATIONS			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
BKWOTYP Yard					11.40 PM		4.33 PM		3.05 AM	2.50 AM	312.9	A. B. S.	TO-R BAKERSFIELD 0.7		67.8	s 3.25 AM		s 1.08 PM		s 11.55 PM	s 1.30 AM			
KI P	6.30 PM	11.55 AM	6.05 AM	12.01 AM	11.42 PM	7.20 PM	4.35	8.25 AM	3.07	2.52	313.6		TO-R KERN JCT. 3.4	Double Track	67.1	3.22	12.05 PM	1.06	9.50 PM	11.52	1.27	8.55 AM	6.00 PM	2.35 AM
No Siding P											317.0		MAGUNDEN 3.1		63.6									
No Siding P					f						320.1		EDISON 7.8		60.6	f								
80 P	6.55	12.20 PM	6.30	12.26	12.05 AM	7.39	4.53	8.44	3.27	3.11	327.9		BENA 3.4		52.8	2.59	11.48 AM	12.49	9.32	11.30	1.05	8.22	5.30	2.10
85 P	7.03	**12.44**	6.38	12.34	12.11	7.44	4.58	8.49	3.33	3.17	331.3		ILMON 3.9		49.4	2.53	11.43	**12.44**	9.27	11.24	12.59	8.12	5.21	2.00
East 68 West 68 IWP	7.18	12.54	6.50	**12.49**	s 12.21	7.53	f **5.07**	8.58	3.42	3.25	335.2		TO CALIENTE 3.0		45.5	s 2.43	f 11.34	f 12.36	9.18	11.15	**12.49**	8.00	**5.07**	1.48
82 I P											338.2		ALLARD 2.3		42.5	2.32	11.26	12.28	9.10	11.08	12.42	7.50	4.45	1.39
West 71 East 71 IWP					**12.37**						340.5		TO BEALVILLE 1.8		40.2						**12.37**			
71 IP	7.45	1.17	7.17	1.11	12.43	8.10	5.24	9.15	3.59	3.42	342.3		CLIFF 3.2		38.4									
East 73 West 73 P	7.55	1.27	**7.27**	**1.21**	12.50	8.17	5.31	9.22	4.06	3.49	345.5		ROWEN 3.3		35.2	2.16	11.10	12.12	8.55	10.52	12.26	**7.27**	4.27	**1.21**
123 IWP No.2 Siding 66	8.15	1.47	7.55	1.45	f **12.59**	8.25	f 5.39	9.30	4.15	3.57	348.8		TO WOODFORD 3.0		31.9	s 2.08	11.03	f 12.05 PM	8.48	10.44	12.18	7.17	4.17	**12.59**
99 P	8.24	1.57	8.10	**1.58**	1.07	8.32	5.46	9.37	4.22	4.03	351.8		WALONG 2.3		28.9	**1.58**	10.56	11.58 AM	8.42	10.37	12.11	7.07	4.07	12.47
West 69 East 69 IWP	**8.37**	2.05	8.21	2.10	1.14	**8.37**	5.52	9.43	4.28	4.08	354.1		TO MARCEL 2.6		26.6	1.53	10.51	11.53	**8.37**	10.31	12.05 AM	7.00	4.00	12.40
81 P	8.55	2.15	8.32	2.20	1.22	8.46	5.59	9.51	4.35	4.14	356.7		CABLE 3.9		24.0	1.47	10.45	11.47	8.30	10.25	11.59 PM	6.52	3.52	12.32
100 IWP Yard	9.14	2.30	8.45	2.35	s 1.33	f 8.56	s 6.09	f 10.01	4.44	f 4.24	360.6		TO-R TEHACHAPI 1.8	Double Track	20.1	s 1.38	s 10.36	s 11.38	f 8.21	f 10.15	11.50	6.40	3.40	12.20 AM
100 Yard YP					1.37	9.00	6.13	10.05	4.48	4.28	362.4		SUMMIT SWITCH 2.6		18.3	1.32	10.33	11.35	8.18	10.11	11.47			
70 P					f 1.42	9.04	f 6.17	10.09	4.53	4.33	365.0		MONOLITH 3.0		15.7	s 1.27	10.29	f 11.31	8.14	10.07	11.43			
YP Yard											368.0		ERIO 1.9		12.7									
WP					1.49	9.10	6.23	10.15	4.59	4.39	369.9		CAMERON 4.4		10.8	f 1.17	10.21	11.23	8.06	9.59	11.35			
78 P					1.57	9.18	6.30	10.23	5.06	4.46	374.3		WARREN 6.4		6.4	1.07	10.13	11.15	7.58	9.50	11.26			
Yard BKWOYP	10.25 PM	3.45 PM	9.55 AM	3.55 AM	s 2.10 AM	s 9.32 PM	s 6.43 PM	10.37 AM	5.20 AM	s 5.00 AM	380.7		TO-R MOJAVE		0.0	12.50 AM	9.58 AM	11.00 AM	7.43 PM	9.35 PM	11.10 PM	5.40 AM	2.40 PM	11.20 PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			(67.8)			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
	(3.55) 17.13	(3.50) 17.50	(3.50) 17.50	(3.54) 17.20	(2.30) 27.12	(2.12) 30.50	(2.10) 31.29	(2.12) 30.50	(2.15) 30.13	(2.10) 31.29			............Time over District............ ....Average Speed per Hour.........			(2.35) 26.24	(2.07) 31.70	(2.08) 31.78	(2.07) 31.70	(2.20) 29.05	(2.20) 29.05	(3.15) 20.64	(3.20) 20.13	(3.15) 20.64

Schedule time and train orders at Tehachapi apply at end of double track.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE REVENUE PASSENGERS					
Train	At	Receive or Discharge	To (or beyond)	From (or beyond)	Frequency
59	Tehachapi	Receive	Stockton		Daily

MOJAVE SUBDIVISION

	EASTWARD											WESTWARD							
Capacity of Sidings in Car Lengths	SECOND CLASS			FIRST CLASS				Distance from San Francisco		Time Table No. 159 January 15, 1939	Distance from Burbank Jct.	FIRST CLASS				THIRD CLASS			
	816 Freight	814 Freight	810 Freight	52 San Joaquin	60 West Coast	26 Owl	56 Tehachapi					51 San Joaquin	25 Owl	59 West Coast	55 Tehachapi	811 Freight	813 Freight	815 Freight
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			STATIONS		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
BKWOYP Yard	11.25 PM	4.50 PM	4.40 AM	6.48 PM	5.25 AM	**5.05 AM**	2.30 AM	380.7	A. B. S.	TO-R MOJAVE 4.1	90.9	s 10.57 AM	s 9.25 PM	s 11.06 PM	s 12.33 AM	**5.05 AM**	1.40 PM	10.30 PM
84 P	11.35	5.00	**4.50**	6.54	5.31	5.11	2.36	384.8		FLETA 2.5	86.8	10.51	9.19	11.00	12.27	**4.50**	1.25	10.16
85 P	11.40	5.05	5.00	6.57	5.35	5.15	2.40	387.3		GLOSTER 3.1	84.3	10.48	9.15	10.56	12.23	4.46	1.15	10.11
81 P	11.46	5.11	5.06	7.01	5.40	5.20	2.45	390.4		ANSEL 3.9	81.2	10.44	9.10	10.51	12.18	4.41	1.06	10.03
80 P	11.53 PM	5.18	5.13	7.06	5.46	5.26	f 2.52	394.3		ROSAMOND 5.6	77.3	10.39	9.04	10.45	f 12.12	4.35	12.58	9.56
50 P	**12.02 AM**	5.28	5.23	7.12	5.54	5.34	3.00	399.9		OBAN 5.6	71.7	10.32	8.56	10.37	**12.02 AM**	4.26	12.48	9.46
BKWOP 74 Yard	12.30	5.45	**5.42**	s 7.20	6.02	**5.42**	s 3.11	405.5		TO-R LANCASTER 4.3	66.1	s 10.25	f 8.48	10.28	s 11.52 PM	4.17	12.38	9.36
50 P	12.43	6.00	**6.08**	7.25	**6.08**	5.48	3.18	409.8		DENIS 4.0	61.8	10.19	8.40	10.18	11.38	4.10	12.29	9.28
68 WY P	12.51	6.08	6.28	f 7.30	6.13	5.53	s 3.27	413.8		TO PALMDALE 2.5	57.8	f 10.14	8.35	10.13	s 11.33	4.04	12.21	9.20
90 P	12.58	6.15	6.35	7.33	6.17	5.57	3.32	416.3		HAROLD 4.2	55.3	10.10	8.31	10.09	11.26	3.57	12.14 PM	9.13
East 75 Yard West 81 YP	1.20	6.45	7.00	7.43	6.29	6.09	**3.45**	420.5		TO VINCENT 4.5	51.1	10.01	8.22	10.00	11.17	**3.45**	11.59 AM	9.00
84 P	1.34	6.59	7.19	7.53	6.39	6.19	3.56	425.0		PARIS 1.1	46.6	9.51	8.11	9.49	11.07	3.22	11.32	8.35
13 P							f 4.00	426.1		ACTON 2.9	45.5				f 11.04			
95 WP	1.50	7.21	7.41	**8.02**	6.48	6.28	f 4.09	429.0		RAVENNA 5.6	42.6	9.42	**8.02**	9.40	f 10.56	3.09	11.19	**8.02**
82 P	2.15	7.36 7.47	7.58	8.14	7.00	6.40	4.22	434.6		RUSS 4.2	37.0	9.30	**7.47**	9.26	10.44	2.52	11.02	**7.36**
101 WP	**2.39**	8.05	8.11	8.23	7.09	6.49	f 4.33	438.7 438.8		TO LANG 4.3	32.8	9.22	7.38	9.17	f 10.35	**2.39**	10.49	7.19
85 P	2.53	8.18	8.24	8.32	7.18	6.58	4.44	443.1		HUMPHREYS 3.8	28.5	9.13	7.28	9.08	f 10.26	2.27	10.37	7.07
81 P	3.05	8.30	8.36	8.41	7.27	7.07	4.54	446.9		HONBY 3.7	24.7	9.05	7.19	8.59	10.17	2.16	10.26	6.56
W 78 Yard E71BKWOYP	3.20	**8.50**	**8.57**	s **8.50**	7.35	f 7.15	s 5.05	450.6		TO-R SAUGUS 2.4	21.0	f **8.57**	s 7.10	**8.50**	s 10.08	2.05	10.15	6.45
63 P							f	453.0		NEWHALL 0.7	18.6				f			
80				8.58	7.40	7.20	5.10	453.7		ELAYON 0.7	17.9	8.51	7.04	8.44	9.56			
								454.4		WALTZ JCT. 2.2	17.2							
58 P	3.48	9.18	9.30	9.05	7.49	7.31	5.21	456.6		TUNNEL 2.6	15.0	8.42	6.57	8.38	9.50	1.37	9.49	6.20
83 P	3.58	9.27	**9.40**	9.09	7.53	7.35	5.26	459.2		SYLMAR 2.6	12.4	8.37	6.52	8.34	9.45	1.27	**9.40**	6.12
Yard 105 WP	4.10	**9.40**	9.55	s 9.14	7.58	7.41	s 5.33	461.8		TO SAN FERNANDO 1.6	9.8	s 8.33	6.48	8.30	s **9.40**	1.14	9.30	6.05
85 P	4.15	9.54	10.01	9.17	8.01	7.45	f 5.38	463.4		PACOIMA 2.2	8.2	8.30	6.45	8.27	9.34	12.59	9.20	5.50
39 P								465.6		WAHOO 2.3	6.0							
96 P	4.26	10.05	10.16	**9.25**	8.07	7.52	f 5.46	467.9		ROSCOE 3.7	3.7	8.24	6.39	8.21	**9.25**	12.47	9.10	5.40
52 PI	4.38 AM	10.17 PM	10.30 AM	9.31 PM	8.13 AM	7.59 AM	5.54 AM	471.6		TO BURBANK JCT.	0.0	8.18 AM	6.33 PM	8.16 PM	9.15 PM	12.35 AM	9.00 AM	5.25 PM
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			90.9		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
	(5.13) 17.42	(5.27) 16.67	(5.50) 15.58	(2.43) 33.46	(2.48) 32.46	(2.54) 31.34	(3.24) 26.73			Time over District…… Average Speed per Hour……		(2.39) 34.30	(2.52) 31.70	(2.50) 32.08	(3.18) 27.54	(4.30) 20.20	(4.40) 19.46	(5.05) 17.88

Schedule time and train orders for first class trains at Saugus apply at initial switch Middle Siding at which opposing trains enter Siding. See special rule 105.

Schedule time and train orders at Burbank Jct. apply at End of double track.

Intermediate Spur: Consolidated Rock Co. M.P. 465.1. Capacity 10 cars.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE REVENUE PASSENGERS

Train	At	Receive or Discharge	To (or beyond)	From (or beyond)	Frequency
26	Lancaster	Receive	Glendale		Daily
26	Palmdale	Receive	Glendale		Daily
59	Lancaster	Receive	Stockton		Daily
60	Lancaster	Discharge		Stockton	Daily
25	San Fernando	Receive	Mojave		Daily
59	San Fernando	Receive	Stockton		Daily
59	Saugus	Receive	Stockton		Daily
26	San Fernando	Receive & Discharge	Colton	Fresno	Daily
60	Saugus	Discharge		Stockton	Daily
60	San Fernando	Discharge		Stockton	Daily

FRESNO SUBDIVISION

Time Table No. 159

January 15, 1939

Riverdale and Visalia Branches

Capacity of Sidings in Car Lengths	EASTWARD FIRST CLASS 58 Sequoia Leave Daily	Distance from San Francisco		STATIONS	Distance from Exeter	WESTWARD FIRST CLASS 57 Sequoia Arrive Daily
Y		181.9		INGLE 5.3	82.5	
39		187.2		TRANQUILITY 4.5	77.2	
56		191.7		SAN JOAQUIN 3.3	72.7	
		195.0		CALDWELL 4.1	69.4	
31		199.1	TO	HELM 7.2	65.3	
15		206.3		BURRELL 3.2	58.1	
		209.5		BENDER 5.2	54.9	
13		214.7	TO	RIVERDALE 2.6	49.7	
Spur		217.3		ROBINSON 2.0	47.1	
Spur		219.3		HUB 1.8	45.1	
		221.1		LATON & WESTERN RY. CROSSING (Stop) 3.1	43.3	
53		224.2 223.0		HARDWICK 6.1	40.2	
East 40 } WYP West 35 } Yard		229.1	TO-R	ARMONA 3.1	34.1	
I		232.2		A. T. & S. F. CROSSING 0.3	31.0	
66 BKP Yard		232.5	TO-R	HANFORD 1.4	30.7	
Spur		233.9		SHELL 3.7	29.3	
54		237.6		REMNOY 7.7	25.6	
94 WOYP Yard	7.50AM	245.3	TO-R	GOSHEN JCT. 7.8	17.9	s 8.45PM
41 P Yard	s 8.10	253.1	A.B.S. {	VISALIA 0.1	10.1	s 8.20
		253.2		A. T. & S. F. CROSSING Stop 2.0	10.0	
P	8.20	255.2		AMBLER 2.1	8.0	8.07
Spur		257.3		RECTOR 1.7	5.9	
7 P	8.26	259.0		FARMERSVILLE 1.2	4.2	8.01
P	8.28	260.2	A.B.S. {	GIANT OAK 3.0	3.0	7.58
74 KWYP Yard	s 8.35AM	263.2	TO-R	EXETER	0.0	7.53PM
	Arrive Daily			(82.5)		Leave Daily
	(0.45) 23.87			........Time over District........ ....Average Speed per Hour........		(0.52) 20.65

FRESNO SUBDIVISION

Time Table No. 159

January 15, 1939

Coalinga Branch

Capacity of Sidings in Car Lengths	EASTWARD	Distance from San Francisco		STATIONS	Distance from Armona	WESTWARD
16 Spur		269.9		CRUMP 1.5	40.6	
71 YP Yard		268.4	TO-R	COALINGA 1.7	39.1	
20 P		266.7		ORA 6.7	37.4	
20 P		260.0		TURK 7.3	30.7	
39 P		252.7	TO	HURON 6.6	23.4	
58 P		246.1		WESTHAVEN 6.7	16.8	
11 P		239.4		LETHENT 2.9	10.1	
15 YP		236.5		ROSSI 1.1	7.2	
14 Spur		235.4		HEINLEN 1.5	6.1	
57 P		233.9	TO	LEMOORE 4.6	4.6	
East 40 } WYP West 35 } Yard		229.3	TO-R	ARMONA	0.0	
				(40.6)		
				........Time over District........ ....Average Speed per Hour........		

FRESNO SUBDIVISION

Time Table No. 159

January 15, 1939

Stratford Branch

Capacity of Sidings in Car Lengths	EASTWARD	Distance from San Francisco		STATIONS	Distance from Stratford	WESTWARD
40		244.1	TO	STRATFORD 4.2	0.0	
Spur		239.9		OUNEO 3.4	4.2	
15 YP		236.5		ROSSI	7.6	
				(7.6)		
				........Time over District........ ....Average Speed per Hour........		

FRESNO SUBDIVISION

Time Table No. 159

January 15, 1939

Clovis Branch

Capacity of Sidings in Car Lengths	EASTWARD	Distance from San Francisco		STATIONS	Distance from Friant	WESTWARD
Yard BKWOTYP		205.5	TO-R	FRESNO 1.6	24.4	
I		207.1		FRESNO TOWER A. T. & S. F. CROSSING 2.3	22.8	
Spur		209.4		BARTON 2.2	20.5	
Spur		211.6		GRANZ 0.2	18.3	
Spur		211.8		MALTERMORO 0.3	18.1	
		212.1		NAVIN 0.8	17.8	
17		212.9		LAS PALMAS 0.3	17.0	
		213.2		FRESNO INTERURBAN RY. CROSSING 0.7	16.7	
No Siding		213.9		VANRIS 1.0	16.0	
27		214.9		TARPEY 1.2	15.0	
24		216.1		MELVIN 1.3	13.8	
37 W		217.4	TO	CLOVIS 1.1	12.5	
9		218.5		GLORIETTA 2.4	11.4	
67		220.9		PINEDALE 2.0	9.0	
38		222.9		GORDON 2.8	7.0	
		225.7		ROCKFIELD 0.3	4.2	
		226.0		GAND 3.9	3.9	
34 WT Yard		229.9		FRIANT	0.0	
				(24.4)		

..............Time over District..................
..............Average speed per hour..............

FRESNO SUBDIVISION

Time Table No. 159

January 15, 1939

McKittrick Branch

Capacity of Sidings in Car Lengths	EASTWARD	Distance from San Francisco		STATIONS	Distance from Olig	WESTWARD
Yard KI		313.6	TO-R	KERN JCT. 1.7	49.1	
P		315.3		BAKERSFIELD CORRALS 1.4	47.4	
15		316.7		STRADER 2.1	46.0	
39 P		318.8		WIBLE ORCHARD 1.7	43.9	
		320.5		VENOLA 2.1	42.2	
50 P		322.6	R	GOSFORD 5.8	40.1	
41		328.4		STEVENS 2.3	34.3	
Spur		330.7		STRAND 5.4	32.0	
		336.1		RIO BRAVO 9.3	26.6	
		345.4		KILOWATT 0.9	17.3	
85		346.3	TO	BUTTONWILLOW 4.2	16.4	
59		350.5		LOKERN 10.1	12.2	
30 Y		360.6		McKITTRICK 2.1	2.1	
		362.7		OLIG	0.0	
				(49.1)		

..............Time over District..................
..............Average speed per hour..............

SUNSET RAILWAY COMPANY

Time Table No. 159

January 15, 1939

Capacity of Sidings in Car Lengths	EAST-WARD	Distance from Gosford		STATIONS	Distance from Maricopa	WEST-WARD
50 P		0.0	R	GOSFORD 3.0	31.9	
14 P		3.0		BANNISTER 6.5	28.9	
40		9.5		CONNER 4.7	22.4	
41 W		14.2		MILLUX 2.6	17.7	
		16.8		LEVEE 10.6	15.1	
Yard 39 Y		27.4	R	PENTLAND 2.7	4.5	
28		30.1		HAZELTON 1.8	1.8	
Yard 17		31.9	R	MARICOPA	0.0	
				(31.9)		

........Time over District........
........Average speed per hour........

Time Table No. 159

January 15, 1939

Capacity of Sidings in Car Lengths	EAST-WARD	Distance from Pentland		STATIONS	Distance from Taft	WEST-WARD
Yard 39 Y		0.0	R	PENTLAND 2.2	8.7	
47		2.2		KERTO 1.3	6.5	
		3.5		WINOIL 3.8	5.2	
		7.3		LOWRY 1.4	1.4	
		8.7		TAFT	0.0	
				(8.7)		

........Time over District........
........Average speed per hour........

SPECIAL INSTRUCTIONS

Southern Pacific Company Rules and Regulations of the Transportation Department, Air Brake Rules and Special Instructions in San Joaquin Division Time Table govern on Sunset Ry.

Train will not exceed the speed in miles per hour shown below:

BETWEEN	Pass.	Freight	Backing
Gosford and Pentland	30	25	15
Except M. P. 26 and Pentland	12	12	12
Pentland and Maricopa	12	12	12
Pentland and Kerto	12	12	12
Kerto and Taft	20	20	15
East Switch Long Siding at Taft and derailer in main track west of Taft	10	10	10

Exercise caution in going over sags in track between M. P. 26 and Maricopa and between Pentland and Kerto and do not exceed 6 miles per hour over sag in track 500 feet east of opening 11A, east of Taft.

At Pentland, normal position of junction switch will be for Taft line.

There is a spring derailer on main track 900 feet west of west switch at Taft.

RULE 93: Yard limits are established at:
Pentland Taft Maricopa.

Dr. A. R. Moodie, District Physician and Surgeon, Taft, California.

MOJAVE SUBDIVISION

EASTWARD — WESTWARD

Time Table No. 159

January 15, 1939

Capacity of Sidings in Car Lengths	SECOND CLASS 802 Freight Leave Daily	FIRST CLASS 788 Mixed Leave Daily Ex. Sunday	Distance from San Francisco		Owenyo Branch STATIONS	Distance from Owenyo	SECOND CLASS 789 Mixed Arrive Daily Ex. Monday	THIRD CLASS 803 Freight Arrive Daily
BKWOYP Yard	4.00 PM	1.25 AM	380.7	TO-R	MOJAVE	143.5	s 12.30 AM	11.05 PM
45	4.04	1.29	380.8		1.3 CHAFFEE	142.2	12.20	10.55
48	4.11	1.36	384.0		3.2 CAMBIO	139.0	12.05 AM	10.40
48	4.30	1.55	392.9		8.9 NEURALIA	130.1	11.45 PM	10.20
48	4.40	2.04	397.3		4.4 CINCO	125.7	11.30	10.05
East 48 W West 48	5.00	s 2.19	402.5		5.2 CANTIL	120.5	s 11.15	9.50
Spur		f	405.3		2.8 GYPSITE	117.7	f	
35	5.15	f 2.30	407.5		2.2 CENEDA	115.5	f 10.50	9.20
13	5.18	f 2.32	408.5		1.0 SALTDALE	114.5	f 10.45	9.15
48	5.30	2.40	412.2		3.7 GARLOCK	110.8	10.35	9.00
48	5.40	2.49	416.4		4.2 GOLER	106.6	10.25	8.45
48	5.55	f 3.00	420.5		4.1 RAND	102.5	f 10.15	8.30
Y 48 Yard	6.15 PM	s 3.45	428.4	TO-R	7.9 SEARLES	94.6	s 9.55	8.00 PM
48		f 3.55	432.8		4.4 RADEMACHER	90.2	f 9.10	
52		4.06	438.3		5.5 CODE	84.7	8.55	
48		s 4.28	447.2		8.9 INYOKERN	75.8	s 8.35	
Spur W		4.38	451.7		4.5 LELITER	71.3	8.20	
48		s 4.48	456.3		4.6 BROWN	66.7	s 8.10	
48		4.57	460.7		4.4 LINNIE	62.3	7.53	
47		s 5.15	468.3		7.6 LITTLE LAKE	54.7	s 7.35	
48		f 5.25	471.5		3.2 COSO	51.5	f 7.25	
48		f 5.35	475.6		4.1 SYKES	47.4	f 7.15	
47 W		f 5.57	484.1		8.5 HAIWEE	38.9	f 6.55	
52		6.06	488.5		4.4 LOCO	34.5	6.45	
48		f 6.16	493.3		4.8 OLANCHA	29.7	f 6.35	
52		f 6.27	497.7		4.4 CARTAGO	25.3	f 6.25	
52		6.37	502.3		4.6 MONACHEE	20.7	6.01	
52		f 6.46	506.3		4.0 BRIER	16.7	f 5.54	
		f	509.2		2.9 BARTLETT	13.8	f	
52 W		7.04	514.3		5.1 DIAZ	8.7	5.40	
East 28 West 52		s 7.40	518.8		4.5 LONE PINE	4.2	s 5.30	
37 BKOY Yard		s 7.55 AM	523.0	TO-R	4.2 OWENYO	0.0	5.15 PM	
	Arrive Daily	Arrive Daily Ex. Sunday			(143.5)		Leave Daily Ex. Sunday	Leave Daily
	(2.15) 21.73	(6.30) 22.07			Time over District Average Speed per Hour		(7.15) 19.79	(3.05) 15.85

MOJAVE SUBDIVISION

(Narrow Gauge)

EASTWARD — WESTWARD

Time Table No. 159

January 15, 1939

Capacity of Sidings in Car Lengths	Distance from San Francisco		Keeler Branch STATIONS	Distance from Keeler
24 P	476.0		BENTON	101.2
13 YPW	487.0		11.0 HAMMIL	90.2
12	489.4		2.4 DEHY	87.8
8	491.3		1.9 SHEALY	85.9
	499.1		7.8 CHALFANT	78.1
Yard POTWK	506.8	TO-R	7.7 LAWS	70.4
20	511.7		4.9 BIGELOW	65.5
10	516.1		4.4 BLACK CANYON	61.1
14 P	522.7		6.6 ZURICH	54.5
40	525.5		2.8 MONOLA	51.7
10 Y	526.8		1.3 BENEME	50.4
8	530.9		4.1 ELNA	46.3
20 PW	536.9 536.2		6.0 ABERDEEN	40.3
14 PW	550.1		13.9 KEARSARGE	26.4
8	555.2		5.1 MANZANAR	21.3
Yard OTPK	559.8	TO-R	4.6 OWENYO	16.7
14	563.7		3.9 MT. WHITNEY	12.8
Spur	568.7		5.0 ALICO	7.8
Spur	570.2		1.5 DOLOMITE	6.3
Spur	571.4		1.2 MOCK	5.1
6	572.2		0.8 TRAMWAY	4.3
Yard WYBK	576.5	TO·R	4.3 KEELER	0.0
			(101.2)	
			Time over District Average Speed per Hour	

RULE 2. Designated watch inspectors:

S. A. Pope, Manager of Time Service, 65 Market St., San Francisco.
Fresno..Bert Fuller, 1335 Fulton St. Visalia...A. G. Hooper,
Fresno..A. L. Colvin, 1211 Fulton St. 111 W. Main St.
Porterville..........Frank Haener Exeter.............W. B. Adams
Hanford......Hanford Jewelry Co. Bakersfield. J. N. Cheney,
Lancaster............ C. E. Miller 1425 19th St.—901 Baker St.
San Fernando......F. G. Marshall Mojave...............A. Ogulnick
Los Angeles.................Wm. B. Baehr, 103 Pacific Electric Bldg.
Geo. D. Davidson Co., 445 S. Spring St.
O. H. Patzer, 2708 North Broadway
Ralph Laraway, 1222 San Fernando Rd.

RULE 3. Conductors on eastward Santa Fe trains originating at Bakersfield will show on reverse side of Kern Jct. register ticket watch comparison made at Santa Fe station Bakersfield, also comparison with enginemen.

RULE 14 (d). As specified below, four long and one short sounds will be indication that flagman may return from west as prescribed by Rule 99.

Famoso	Trains on Porterville main track.
Ducor	Trains on Minkler-Southern Branch.
Exeter	Trains on Visalia Branch.
Goshen Jct.	Trains on Riverdale Branch.

RULE 14 (e). As specified below, six long sounds will be indication that flagman may return from east as prescribed by Rule 99.

Fresno	Trains on Porterville main track and Clovis Branch.
Porterville	Trains on Success Branch.
Rossi	Trains on Stratford Branch.
Goshen Junction	Trains on Visalia Branch.
Ingle	Trains on Riverdale Branch.
Richgrove	Trains on Richgrove Branch.
Magunden	Trains on Arvin Branch.
Mojave	Trains on Owenyo Branch.

RULES 17 and 19. Night signals will be displayed through tunnels.

RULE 21 (C). In Bakersfield and Fresno indicators on engines must be displayed to relief track.

RULE D-71. Trains and engines may move between Calwa Tower and Clinton Ave., Fresno with current of traffic irrespective of time table superiority but must avoid delaying first-class trains.

Inferior trains and engines may run ahead of first-class trains Bakersfield to Bena and Bena to Bakersfield, but will take necessary precautions to avoid delay to passenger trains.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction, except as noted on page 2.

RULE 83. Train registers are not maintained at Calwa Tower or Bena. When an observation check be made between Fresno and Calwa Tower, and between Bakersfield and Bena, it will apply at end of double track.

Trains approaching each other between these stations will reduce speed sufficiently to permit identification.

When first class trains on opposite track between Mojave and Tehachapi are identified, it will not be necessary to obtain check of such trains before making movements in the same direction between Summit Switch and Mojave.

Rule 14-k must be applied when approaching trains on opposite track.

RULE 83 (A). At the following stations, only the trains indicated will register.

Oil Jct. Lancaster Saugus	Trains originating and terminating.
Famoso	Trains to and from Porterville main track.
Tehachapi	First and second class trains, and trains originating and terminating.
Goshen Jct.	No. 55, No. 56, No. 57, No. 58 and trains to and from Visalia and Riverdale Branches, and extras originating and terminating.

When directed to register at an intermediate station, an extra train must show in column captioned "signals," the number and date of train order authorizing its movement; also the restricting order if such an order is in effect.

RULE 83 (B). At open train order offices trains may register by ticket as follows:

Kern Jct.	Santa Fe trains, S. P. first class trains and Westward light engines.
Tehachapi	First and second class trains.
Porterville Olive St.	First class trains.
Famoso	Trains to and from Porterville main track.

Operator Kern Jct. will report arrival and departure Santa Fe first-class trains to Operator Bakersfield, who will enter same on register.

Operator Kern Jct. will report arrival and departure of all scheduled trains to operator Santa Fe station Bakersfield, who will enter same on Southern Pacific register located at Santa Fe station Bakersfield.

RULE 83 (D). Westward Santa Fe trains via Southern Pacific will obtain clearance and train orders from operator Santa Fe station Bakersfield authorizing movement from Oil Junction westward.

Eastward Clovis Branch trains destined to Fresno Interurban obtain train orders or clearance from operator at Fresno Tower, authorizing movement over Fresno Interurban.

Trains to and from Riverdale Branch and Western Division must obtain separate Western and San Joaquin Division clearances.

Trains via Visalia and Riverdale branches must obtain clearance before leaving Goshen Jct. when operator on duty. Trains to and from Santa Paula Branch must obtain a clearance before leaving Saugus.

San Joaquin Division routed trains must obtain San Joaquin Division clearance authorizing movement west of Burbank Jct., in addition to Los Angeles Division clearance, at initial station on Los Angeles Division. Each clearance must be properly designated.

Eastward trains from San Joaquin Division are authorized to assume corresponding schedule on Los Angeles Division from Burbank Jct. to terminal station of schedule. Trains to and from San Joaquin Division are not required to obtain clearance at Burbank Jct. provided train is properly cleared by train-order signal.

RULE 83 (E). A train when authorized by train order, may check the register against an extra train, and proceed if such extra train appears on the register with the number and date of its restricting order registered in column captioned "Signals".

When a train is so authorized to check the register, it must register and place the restricting order number and date in column captioned "Signals".

RULE 93. Yard limits are established at:

Fresno
Selma
Kingsburg
Goshen Jct.
Tulare
Delano
Bakersfield
Tehachapi
Summit Switch
Eric
Mojave
Lancaster
Vincent
Saugus
San Fernando
Sanger
Reedley
Dinuba
Exeter
Lindsay
Porterville Olive St.
Visalia
Hanford
Armona
Hardwick
Coalinga
Friant
Searles
Owenyo
Keeler
Laws

Fresno: Limits are defined by yard limit signs at the following points:

Kerman Line	Mile Post 206.32.
Merced Line	Mile Post 199.08.
Bakersfield Line	Mile Post 210.81.
Porterville Main Track	Mile Post 208.15.
Clovis Branch	Mile Post 209.6.

Trains or engines will not move against current of traffic on double track between Divisadero Street and Clinton Avenue and between Cherry Avenue and Calwa Tower, Fresno, except on authority of Yardmaster. When making movements against current of traffic, trains or engines must be preceded by flagman over railway and street crossings at grade where wigwags are installed, protecting these crossings during movements.

Trains arriving and departing via Los Banos line at Fresno will receive proceed signal from herder at Divisadero Street, green flag by day and green light by night.

Westward trains or engines must receive proceed signal from yardman at Kern Street; and eastward trains or engines must receive proceed signal from yardman at Merced Street.

Mojave: First class trains may pass through Mojave without hand signals, providing switches are properly lined for such movement, and will move with caution irrespective of timetable superiority between Signals 3802 and 3811. Inferior trains entering or leaving Mojave must receive green signal unless yardmaster or his subordinate notifies train that they may enter or leave without green signal.

Trains leaving east end of yard may proceed without signal from herder provided they are notified switches are properly lined.

Trains from Owenyo Branch stop before fouling main track or blocking highway crossing regardless of position of derailer or signals received.

Unless yardmaster or his subordinate instruct otherwise, crossover movement from Owenyo Branch to Mojave will be made as follows: First throw derailer on Owenyo Branch, second throw trailing point switch on eastward main track, third crossover switch on westward main track, fourth Owenyo Branch switch—then wait three minutes before proceeding. Be governed by Rule 93.

Following code of signals will govern eastward trains entering yard:

Southern Pacific:

Passenger trains	One long.
Freight trains	One short, one long, one short.

Santa Fe:

Passenger trains	One long, one short.
Freight trains	One long, one short, one long.

RULE 95. Eastward trains from San Joaquin Division holding train order authority to display signals for following section to Burbank Jct. are authorized to display signals to terminal station of schedule on Los Angeles Division.

RULE D-97 (A). Will apply between Tehachapi and Summit Switch.

Eastward extra trains with running orders terminating at Burbank Junction may proceed beyond that station without a clearance, being governed by train order signal.

RULE 98. RAILROAD CROSSINGS AT GRADE NOT INTERLOCKED

A. T. & S. F. Railway, 744 feet east of Lacjac, STOP.
A. T. & S. F. Railway, 14718 feet west of Taurusa, STOP.
A. T. & S. F. Railway, 602 feet east of Visalia, STOP, and not pass over crossing without receiving proceed signal from flagman, who must precede train.
Laton & Western Railway, 1.8 miles east of Hub, STOP.
A. T. & S. F. Railway (on Success Branch), **4515 feet east of Porterville, STOP.**

Fresno Interurban Railway, 1771 feet east of Las Palmas.

Fresno—Trains from Clovis Branch and Porterville main track stop at "stop" board at junction of these lines.

Goshen Jct.—Trains from Visalia Branch stop at "stop" board east end of yard.

End of the Visalia Branch will be at first switch east of the station where it enters Bakersfield-Fresno main track.

RULE 103 (A). At Selma no switching movements will be made over West Front Street while switching industrial tracks east of station and opposite Libby, McNeill and Libby Plant unless crossing is protected by member of crew.

No train, engine, car or motor shall be stored within 100 feet of either property line of County Road Crossing or Western Dairy Products track at Tipton, unless crossing is protected by flagman.

At Armona no switching movements will be made over Lake Street crossing unless protected by member of crew.

Trains switching Knudsen Laboratories, Inc. (Creamery) Spur, Visalia, must stop before making reverse movement across Goshen Avenue crossing.

When using spur track leading to freight station, Bakersfield, member of crew will see that highway traffic on U. S. Highway 99 is protected. After having entered upon crossing, it should be cleared as quickly as practicable.

In general, highway crossing signals are so designed that they will not operate for trains or engines making a reverse movement after having passed over the crossing. Trains or engines making such reverse movements must protect the crossing unless iti s known signals are operating.

RULE 104. The normal position of switches at junctions will be for main tracks.

Exceptions:

Fresno Yard, Clinton Avenue (end of double track) for eastward track. This is an oil buffer spring switch.

Fresno, junction Los Banos line, for eastward track. This is an oil buffer spring switch.

Bena (end of double track) for westward track. This is an oil buffer spring switch.

Tehachapi (end of double track) for eastward track.

Mojave (end of double track) for westward track.

Saugus (Santa Paula Branch switch in middle siding)	for Siding
Armona	for Coalinga Branch
Rossi	for Coalinga Branch
Pernu Jct.	for Success Branch
Gosford	for Sunset Railway

Switch at stem of wye McKittrick must be set for direct movement along the east leg of wye to serve as derail for cars spotted on stem of wye.

Derailers in main track.

McKittrick. East wye switch is spring switch and serves as derail.
Porterville. 310 feet east of junction switch on Success Branch.
Mojave. 230 feet east of junction switch on Owenyo Branch.
Famoso. 168 feet west of junction switch, on Porterville main track.

RULE 104 (D). Use of heavier than C class engines in making running switches is prohibited unless engine is routed over other than diverging track.

RULE 105. Track next to and north of main track at Ducor will be used as siding No. 1. Second track north of main track, will be used as Minkler Southern Ry. main or No. 2 track. Trains will use extreme east switch to enter or leave Southern Pacific main track. Inside switches will be left lined for Siding No. 2.

At Caliente, Bealville and Marcel the siding next to main track will be used as eastward siding, adjoining track will be used as westward siding. Inside siding switches are oil spring switches and normal position is for train entering siding. Trains entering siding passing an inoperative signal must assure themselves this switch is properly lined.

At Rowen the siding east of the crossovers will be used as the westward siding, the one west of the crossovers as the eastward siding.

Track (No. 1) next to main track west of station at Tehachapi will be used as westward siding.

At Vincent siding next to main track will be used as eastward siding, adjoining track will be used as westward siding.

Trains using other than the designated siding, unless authorized by the dispatcher, must be preceded by a flagman.

In the territory between Caliente and Tehachapi trains using sidings designated for trains in the opposite direction must do so with caution expecting to find sidings occupied.

At Saugus the siding east of the station is the westward siding and the siding west of the station is the eastward siding. Track opposite station extending from westerly connection 863 feet east of station to connection with main track 722 feet west of station shall be known as middle siding. First-class trains meeting at Saugus use middle siding unless otherwise instructed.

RULE 221. Light will not be displayed in train order signals on Clovis, Riverdale, Coalinga, Stratford, Visalia, McKittrick, Keeler branches and Sunset Ry., except when train orders are to be delivered.

Trains will not be required to obtain clearance at Kern Jct. and Bakersfield except when such trains originate or receive orders at these stations.

RULE 824. Instructions for setting brakes.

MOJAVE

PASSENGER TRAINS—When road engine is detached, two brakes on east end and two brakes on west end on trains of 16 cars or less will be set. When train is set out to tie up, at least half of the brakes on the train will be set but in case train consists of 2 or 3 cars, 2 brakes will be set.

FREIGHT TRAINS—Ten brakes on east end, 5 in middle and 5 on west end on trains of 72 cars or less; 73 to 102 cars, 15 brakes on east end, 10 in middle and 5 on west end.

WOODFORD (When taking water)

FREIGHT TRAINS (Eastward)—First helper will spot for water, 5 brakes will be set ahead of this helper, 5 behind road engine and 5 ahead of second helper. First helper will keep engine brake applied until ready to proceed.

RAVENNA (When taking water)

FREIGHT TRAINS (Westward)—Road engine will spot for water, engine brake will be left applied on road engine and 8 brakes set ahead of helper that cuts off and takes water.

CALIENTE (When taking water)

FREIGHT TRAINS (Eastward)—Road engine will spot for water, and 8 hand brakes will be set just ahead of first helper that cuts off and takes water.

In complying with the above hand brakes on freight trains must be set with assistance of brake club after train has stopped. When for any reason hand brakes are released under these conditions, the same number must be set to replace them. Where the use of hand brake is required, air brakes must not be relied upon as a substitute.

In event it should happen that the road engine and first helper are spotted at same time to take water at Woodford, Ravenna and Caliente, automatic brakes will be released and it will not be necessary to apply hand brakes as long as road engine remains on the train.

When going to eat, or at any time that either train or engine crew leave train, sufficient hand brakes will be applied to hold the train.

In the application of Rule 825 in non-grade territory, conductors will take into consideration conditions such as heavy winds which arise from time to time on the Division.

RULE 825. Outfit cars must not be left in front of warehouses, storehouses, lumber yards, or other buildings.

When necessary to cut crossing and a distance of 100 feet on each side cannot be provided, a human flagman must protect. Cars must not be left in any position that would obstruct the view of an autoist or pedestrian of an approaching train, unless crossing is protected as stated above.

In cutting crossing Roscoe or Sheldon Ave., Wahoo, openings must be made so that cars or engines will not be left within 100 feet of either property line unless crossing is protected by a member of train crew or other competent employe acting as flagman.

RULE 833. Whenever practicable locomotive cranes, or cranes of similar type must be handled in trains with heavy end forward.

Except those of Southern Pacific ownership, cranes or machines of similar type, with rotating body, loaded on open cars, must not be moved until inspected and released by mechanical department. Conductors must not move Jordan Spreaders, except when in use, unless wings are protected against spreading by chain or tie bar extending from wing to wing and wing arm to wing arm.

RULE 834. Open-top cars loaded with rail, pipe, structural steel, lumber, poles or mounted wheels, when such lading projects above sides and end walls of car, must not be placed in train next to cab of mallet engines.

RULE 836. Cars moved from one station to another ahead of engine on descending grade must be chained to the engine. Switching movement on descending grades must be protected by a derail. When practicable engine must be kept on down hill end of cars.

When necessary to move cars ahead of engine do not exceed 20 miles per hour.

RULE 843. When a train is split at two sidings for the purpose of meeting or passing trains, conductor must accompany both portions of the train.

RULE 869. Trainmen will ride on top of trains through yards, entering and leaving terminals, through interlocking plants, also Vincent to Saugus, Vincent to Palmdale, Summit Switch to Mojave, Summit Switch to Ilmon, Tunnel to Burbank excepting rear brakeman, Searles to Cantil, McKittrick to Lokern and at other places as instructed by Conductor. Additional swing men must ride near the middle portion of train assigned to them. Trainmen must not ride on top of their train while passing through Tunnel 25.

RULE 883. Engines under steam must not be stored or left unattended on tracks that are not protected by derails against entry to main track.

AUTOMATIC BLOCK SYSTEM

RULE 509. A train or engine, when backing out of a siding or other track in block system limits, will, unless backed to clear block signal, proceed as if signal be in stop position.

Eastward freight trains having more cars than can be placed between San Fernando Road and home interlocking signal at Burbank Junction; if automatic home signal 4706 indicates stop, must stop west of crossing and communicate with signal operator by telephone located on post opposite signal 4706.

RULE 509 (e). That portion reading: "And the intervening track is seen to be clear," is interpreted as referring to the track being clear of engines and/or cars.

That section of track in Fresno between Tuolumne Street and Ventura Avenue is not protected by block signals. Be governed by third paragraph Rule 93.

Dwarf light signals governing movements to main track located as follows: Signals 2020 and 2022 Clinton Ave., Fresno, Signals 2565 and 2625 at Exeter, Signal 2870 Ducor, Signal 3627 Summit Switch, and Signal 3679 Eric. The first switch or derail lined, dwarf signal will indicate red. When all switches and derail are lined dwarf signal will indicate proceed. If signal indicates stop after proper line up has been made, a train will not move to main track except as provided by Rules 509 and 99.

Fresno.—West switch and derail of running track, Fresno Yard near Biola Jct., the Biola main track junction switch and derail, and switch No. 2 track west of Ashland Ave. are hand operated by using the switch levers on side of electric switch machines.

Signals governing movements from Biola Branch and from the west end of No. 1 track will indicate stop until derails and switches have been properly lined for route desired, when signals will indicate proceed.

Exeter.—Signal 2628 at junction Visalia Branch and Porterville main track normally indicates stop until crossover lined for movement to main track.

Bena.—Eastward trains leaving siding will be governed by dwarf light signal 3282 which will indicate proceed after siding switch has been thrown to reverse position for two minutes.

Tehachapi.—Trains on No. 1 track at Tehachapi ready to leave, finding dwarf light signal 3595 at stop, will push button located in box on post two feet east of signal 3593. After pushing this button signal will clear in two minutes if no trains in block.

Warren.—When dwarf light signals located at either end of siding indicate stop, trains entering will be preceded by a flagman.

Searles.—Automatic block signals 4277 and 4268, located at east and west end of Tunnel 29 at Searles.

Knife switches have been installed in relay boxes located at these signals for use of operators of motor cars passing through tunnel.

Motor cars should stop and if signal indicates proceed, switch in box should be thrown to reverse position which will place signals at stop before entering tunnel. After passing through tunnel, stop must be made at signal and knife switch thrown to reverse position, which will clear signals.

The following block signals, equipped with a triangular number plate, have included in their control limits some special protective device. When indicating "STOP" careful inspection must be made of the track and structure as indicated below and it must be known that it is safe for passage of trains before proceeding.

Signals		Location
2016	Clinton Ave., Fresno	Spring switch, end of double track.
3281	Bena	Spring switch, end of double track.
3308	Ilmon	Spring switch, west end.
3450	Rowen	Spring switch, west end.
3512	Walong	Spring switch, west end.
3564	Cable	Spring switch, west end.
3592	Tehachapi	Spring switch, west end.
4574		Culvert 457 D.
4579		Culvert 457 D.

Block signals 4500 to 4513 Saugus govern movement of trains entering yard. If signals indicate stop, after stopping, train may proceed with caution, not exceeding 12 miles per hour.

OIL BUFFER SPRING SWITCHES

When a block signal in advance of a facing point oil buffer spring switch indicates "STOP", careful examination of switch must be made before passing over it.

When making trailing point movement and train is stopped on switch, a reverse movement must not be made, nor the slack taken until the switch has been thrown by hand. When movement has been completed through switch, reverse movement must not be made until point closes.

Running switches are prohibited and sand, blow-off cocks, and injectors must not be used nor boosters started while passing over these switches.

Oil buffer spring switches are located as follows, and speed indicated must not be exceeded when passing over such switches.

		M.P.H.
Fresno, Clinton Ave., end double track	Trailing westward	35
	Facing eastward	20
Fresno, junction Los Banos line	Trailing eastward	15
	Facing westward	10
Bena, end double track	Trailing eastward	35
	Facing westward	20
Bena, west end siding	Trailing westward	50
Ilmon, west end	Trailing westward	30
	Facing eastward	30
Caliente, west jct., eastward and westward sidings	Trailing westward	10
	Facing eastward	10
Caliente, east jct. eastward and westward sidings	Trailing eastward	10
	Facing westward	10
Allard, west end	Trailing westward	30
	Facing eastward	30
Bealville, west jct. eastward and westward sidings	Trailing westward	10
	Facing eastward	10
Bealville, east jct. eastward and westward sidings	Trailing eastward	10
	Facing westward	10
Rowen, west end	Trailing westward	30
	Facing eastward	30
Walong, west end	Trailing westward	30
	Facing eastward	30
Marcel, west jct. eastward and westward sidings	Trailing westward	10
	Facing eastward	10
Marcel, east jct. eastward and westward sidings	Trailing eastward	10
	Facing westward	10
Cable, west end	Trailing westward	30
	Facing eastward	30
Tehachapi, west end	Trailing westward	30
	Facing eastward	30
Summit Switch, east end	Trailing eastward	50

RULE 511. Within block system limits after switches of a crossover are thrown, wait three minutes before crossing over, unless block signals protecting the movement can be seen to be in stop position not less than one-half mile distant.

RULE 516. Overlap post is located at:

Newhall—Eastward trains—2000 feet east of west switch.

INTERLOCKING

At all interlocking plants, when route lined is not to be used, following signal will be sounded by Engineers, two short, one long and two short (oo——— oo).

FRESNO TOWER—A. T. & S. F. Crossing 1.6 miles east of Fresno on Clovis Branch

For main track, one long whistle (———).

To or from spur track, one short and two long whistles (o — —).

SUN MAID TOWER—A. T. & S. F. Crossing 1.5 miles east of Fresno on Porterville main track

One long whistle (———).

CALWA TOWER—A. T. & S. F. Crossing and double track 3.6 miles east of Fresno

Eastward trains approaching end of double track will call for switch and derailer by one long, one short and one long whistle (——— o ———).

Westward trains, one long whistle for crossing and for double track (———).

HANFORD TOWER—A. T. & S. F. Crossing 0.3 miles west of Hanford

One long whistle (———).

TULARE TOWER—A. T. & S. F. Crossing 0.3 miles west of Tulare

One long whistle (———).

KERN JCT. TOWER—A. T. & S. F Crossing, double track and McKittrick Branch 0.7 mile east of Bakersfield

For main track, one long whistle (———).

For movement over crossing on siding, one long, one short and one long whistle (——— o ———).

From S. P. to A. T. & S. F. main track, one short and two long whistles (o——— ———).

Between main track and transfer track, one short, one long and one short whistle (o ——— o).

No. 1 track, two short, one long and one short whistles (o o ——— o).

Dwarf light signals opposite end of double track governing westward movement are as follows:

Green............	Westward track to S. P. single track.
Yellow............	To Santa Fe westward double track or S. P. No. 1 track.

Dwarf light signal for eastward movement is located at west limits of interlocking plant. Light signals as follows:

Green............	Eastward main track.
Yellow............	Against current of traffic.

Transfer tracks have pipe connected derails to main track (transfer switch).

At Kern Jct. only, Rule 628 is modified to permit movement, without stopping, of helper cuts only, past interlocking signals in stop position, provided yellow signal is received from the towerman in tower or on ground, and helper engineer sees that track is properly lined for movement to be made.

TEHACHAPI

Main track movements (to or from double track) one long whistle (———).

No. 1 siding, one short, one long and one short whistle (o ——— o).

Trains or engines entering interlocking limits, except where fixed signals govern movements must receive authority from signal operator when may proceed with caution, not exceeding twelve miles per hour to next signal.

CALIENTE, ALLARD, BEALVILLE, CLIFF, WOODFORD, MARCEL

The east and west switches of sidings at Caliente, Bealville, Cliff, Woodford, Marcel and the east switch of siding at Allard are interlocked and controlled from Telegraph office. All other switches are hand throw. The switches and signals at Allard and Cliff are controlled by the plant at Bealville.

Interlocking limits extend on main track from the eastward signal, located fifty (50) feet west of the west switch, to the westward signal, located fifty (50) feet east of the east switch at Caliente, Woodford and Marcel, and on both main track and siding at Woodford, and at Bealville from the eastward signal, located fifty (50) feet west of the west switch Allard to westward signal, located fifty (50) feet east of the east switch Cliff. All signals within these limits are interlocking, except Signals 3412 and 3417, which are automatic.

When the eastward interlocking signals east end Bealville or the westward interlocking signals west end Cliff are inoperative, trains must be preceded by flagman to the next signal.

Trains stopped by signals must communicate with signal operator by telephone located in telephone booths at east and west switches and be governed by his instructions. Additional telephones are provided at derail west end No. 2 siding at Woodford, and at derail of house track extension at Caliente. If instructed by signal operator to throw interlocked switch by hand, follow instructions posted in telephone booth.

The member of crew cranking switch over, after receiving permission from signal operator, must notify rear member of his crew in order that switch will be returned to normal position, or remain at switch and return it to normal position, unless instructed by signal operator to leave switch open.

When for any reason, proceed indication of an interlocking signal cannot be acted upon at once signal operator must immediately be notified.

When pulling out of sidings at Caliente, Bealville and Marcel, where both sidings are occupied with trains moving in same direction, both trains will stop at clearance point and enginemen will have an understanding as to which train will move out of siding first, unless otherwise directed by the dispatcher.

Trains or engines entering main track, except where fixed signals govern movement, must receive authority from signal operator, then may proceed with caution, not exceeding 12 miles per hour to next signal.

At Cliff, Spur switch west end siding will be hand operated and trains must not enter or leave spur except on telephone authority from signal operator at Bealville.

At Woodford "Take Siding Indicator" mounted on mast of westward interlocking signal will govern westward trains that are to use No. 2 siding.

When westward third class and extra trains are given main track Allard, and unable to proceed farther ahead of superior trains in same direction, they will immediately advise the signal operator at Bealville.

Trains entering sidings at Caliente, Bealville and Marcel will stop clear of adjacent siding unless a proceed signal is indicated in light signal governing the movement to main track.

FRESNO OLIVE AVE. CROSSING, AUTOMATIC INTERLOCKER

Interlocking limits extend from eastward light type signal SA-2032, located 750 feet west of Fresno Traction Company crossing to westward light type signal SA-2033 located 750 feet east of this crossing.

When these signals display stop, trains will be governed by interlocking rules within the interlocking limits and Rule 509 within the automatic portion of the block beyond the interlocking limits and will be preceded to crossing by flagman.

Dwarf light type signals installed between main tracks and located 80 feet east and west of this crossing govern moving against current of traffic. These signals indicate stop only and trains must be preceded by flagman who will give proceed signal from center of crossing.

LOS ANGELES YARD — BURBANK JUNCTION TOWER

To Roscoe or Los Angeles, one long (——). To siding, five short (o o o o o).

To Hewitt, one long, four short (—— o o o o).

To industrial lead, one short, one long, one short (o —— o).

TRAIN AND AIR INSPECTION

At the following stations freight trains descending grade between Caliente and Lang will stop 10 minutes to allow heat to equalize in wheels and make inspection:

Ravenna.

Marcel Rowen.—Or in making other stops, inspection may be made provided initial run is not to exceed 8 miles, succeeding runs not to exceed 10 miles.

A continuous run of 10 miles will not be made where the run from the last inspection point was less than 7 miles.

Warren.

Owenyo Branch.—Rand.

Keeler Branch.—Hammil.

McKittrick Branch.—M. P. 353.

Freight trains must not run more than 40 miles without a stop for inspection: Except run may be made by westward freight trains, Saugus to Lancaster, Ravenna to Mojave, Bakersfield to Tipton, Tipton to Fresno or vice versa and Cantil to Leliter without stopping for train inspection when in the judgment of the conductor it is safe to do so. Inspection will be made at any intermediate stops.

AIR BRAKE RULE 11.

Air brake inspection at points where no car inspectors are on duty, and motive power and/or engine crew or train crew is changed on a freight train, shall be made as follows:

After the train is made up and the engine attached the engineer will apply the brakes with a 20 pound service reduction and leave them applied. The trainmen will then pass along the train to determine that the brake is applied on each car. The numbers of any cars found with inoperative air brakes must be reported on Form 2809 and such cars assembled and switched to the rear of the train next ahead of the caboose before leaving that station. After this inspection has been made, brakes have been released and trainmen have noted that normal brake pipe pressure has been restored as indicated on caboose gauge and have given signal to engineer, the latter must comply with last part of Rule 11 to avoid brakes sticking from an overcharge of the brake system etc.

If it is necessary to switch any cars to the rear account brakes being inoperative Rule 17 must be complied with before departure.

Rule 34 must be observed to determine by rolling inspection that each brake releases properly.

Attention is directed to the Safety Appliance Act which requires that whenever any train is operated with power or train brakes not less than 85 per cent of the cars of such train shall have their brakes used and operated by the engineer of the locomotive drawing such train. All power-brake cars in every such train which are associated together with the 85 per cent shall have their brakes so used and operated.

AIR BRAKE RULE 13.

At lay-over points for passenger equipment, where there are no car inspectors, crews must make air brake test before starting on initial trip as follows: Brake pipe must be fully charged, engineer then apply air brake; trainmen must examine each car to see whether all brakes are applied. If all brakes apply, trainmen must give signal 16-e from rear car, examine each car in train to see that all brakes release, and report condition to the engineer.

AIR BRAKE RULE 16.

Passenger Trains: Make running air brake test at Summit Switch and between initial and crossover switch at Vincent. Not necessary to make running test on passenger trains leaving Mojave that have not had the continuity of the brake pipe broken. Eastward Santa Fe passenger trains leaving Kern Jct. will not make running test. Within yard limits of Fresno, running air brake test will be made on eastward trains only when leaving Fresno.

When running air brake test is made trainmen will use communicating Signal 16-h instead of hand or lantern signals.

On westward passenger trains leaving Bakersfield, running test shall not be made until rear car has cleared Baker Street.

Freight Trains: Freight trains not stopping at Summit Switch will make running air brake test between wye switches as follows: While working steam, engineer will make a reduction of approximately 7 pounds, waiting for slack to adjust itself and then add about 3 pounds, making total reduction of 10 pounds before releasing.

Conductor will note reduction on caboose gauge and following build up in pressure when brakes are released, then give proceed signal which will be relayed by other trainmen from their portion of the train, providing they note retainers releasing in their vicinity.

If conductor is on the head end, the rear brakeman is held responsible for such observance of the gauge as will insure against danger from closed angle cock or low pressure.

When such observance indicates danger, take every needed precaution as the circumstances warrant.

If releasing of brakes cannot be made at a greater speed than 15 miles per hour, stop and make rear end test.

Whenever rear end tests or running tests, whichever are required under the rules, have been made on eastward trains at Tehachapi, it will not be necessary to make running tests on such trains not stopping at Summit Switch.

Westward freight trains that do not have helpers to cut out at Vincent and do not stop there for other operating reasons, will turn up the retaining valves on the first ten cars behind the engine at the east distant signal approaching Vincent, and will make air brake running test between siding switches as follows:

While working steam and not allowing driver brakes to apply, follow the same procedure as outlined in instructions relative to making the freight train running test at Summit Switch, with the exception that a release may be made at a speed not slower than 8 miles per hour. If train has to stop for any reason, or if speed of at least 8 miles per hour cannot be made at time release is desired, standing air brake test as per Rule 17 of the air brake rules will be made.

On Eastward freight trains not having helpers to cut out or required to stop at Vincent for operating reasons, they will follow the same procedure as outlined in next paragraph above, except that one retaining valve for each 115 M's contained in train will be used. These retaining valves must be turned up at or near west distant signal, the retaining valves on head portion of train to be turned up first.

AIR BRAKE RULE 17.

Rear end test will be made in accordance with Rules 17 and 17-A of the Air Brake Rules, and this test will also be made at the following places under the conditions hereinafter stated:

Vincent................	Freight trains stopping.
Summit Switch........	All trains stopping.
Mojave................	Freight trains not originating.

Leading engineer will not signal for rear end test on trains having helpers until such helpers indicate by one blast of the whistle that the train is ready for the test.

Before a train which has stopped on grade is signalled to proceed, air gauge in caboose must be observed. If gauge indicates brake pipe unobstructed and registers a pressure of not less than 65 pounds, proceed signal may be given.

AIR BRAKE RULE 54.

Emergency hose must be used on all freight trains between Los Angeles and Bakersfield.

Trains of 50 cars or less 2 emergency plugs will be used located approximately 20th and 40th cars from engine.

Trains of 50 to 71 cars 3 plugs located approximately between 20th, 40th and 60th cars from engine.

Trains of 71 to 100 cars 4 plugs located approximately on the 20th, 40th, 60th and 80th cars from engine.

Trains of 100 to 124 cars 4 plugs located on the 20th, 40th, 60th and 100th cars from engine.

On westward freight trains plugs will be fastened on east end of car and on eastward freight trains on west end of car.

Emergency hose will be handled by carmen at Los Angeles and Bakersfield, but must be applied and removed when necessary by trainmen at intermediate stations and placed in caboose.

In applying these hose efforts should be made to apply them between through loads so as to avoid having to change them enroute where emergency is encountered.

Handle of emergency hose must be sealed by carmen and full report made by trainmen when seal broken.

AIR BRAKE RULE 56.

Unless otherwise provided, retainers will be used on passenger trains as follows:

Westward trains......Tehachapi to Tunnel 1—All retainers

Retainers on all head end cars of eastward passenger trains (except Train No. 56) will be turned up at Summit Switch, remainder of retainers to be turned up at Cameron without stopping, all retainers being used to Mojave. When retainers are thus used speed of trains must not exceed 45 miles per hour.

Retainers on all head end cars on Train No. 56 will be turned up at Tehachapi, remainder of retainers to be turned up at Cameron without stopping, all retainers being used to Mojave. When retainers are thus used speed of train must not exceed 45 miles per hour.

Unless otherwise provided, trains having not to exceed two head end cars available retainers will be used Cameron to Mojave and Tehachapi to Tunnel 1.

Retainers will be used on freight trains as follows:

Eastward trains........Cameron to Mojave.
Eastward trains.......Vincent to Lang.
Eastward trains........Benton to Hammil.
Westward trains.......Vincent to Harold.
Westward trains.......Tehachapi to Tunnel One.
Westward trains.......McKittrick to Lokern.
Westward trains........Searles to Garlock.

Eastward Southern Pacific freight trains stopping at Summit Switch will turn up retainers there, and if train brakes are applied a speed of 20 miles per hour must not be exceeded Summit Switch to one mile east of Cameron.

On freight trains descending grade Tehachapi to Tunnel 1, Cameron to Mojave and Vincent to Lang, one pressure retaining valve must be used for each 115 M's in train. Searles to Garlock one pressure retaining valve for each 150 M's, and Benton to Hammil one pressure retaining valve for each 50 M's must be used. Retaining valves to be used solid on head end of train.

Descending grade between Vincent and Harold, use ten retaining valves on head end of train.

One retaining valve must be turned up for each 400 M's in eastward freight trains of 45 or more cars as follows:

At Tunnel or Sylmar turn up each alternate, beginning with head car; at Pacoima turn down those in use and turn up each alternate, beginning with next to head car; at Burbank Junction turn down.

If, in the judgment of the engineer, or conductor, additional retaining valves are required to properly control speed of the train, trainmen shall turn them up accordingly.

This will not be authority to exceed specified speed restrictions.

Speed of freight trains will be reduced at points where trainmen are required to handle retainers.

Where retainers are used the rate of speed of freight trains on any grade of over one per cent will not exceed 25 miles per hour, and on grades of this character more than five miles long, for the first five miles the time consumed in traveling one mile shall not be less than three minutes. The above maximum speed restriction will not affect the speed on heavier grades and other locations, where the maximum is now provided. Retainers on eastward freight trains entering Mojave must not be turned down until train comes to rest on designated tracks.

Freight trains taking siding where it is necessary for them to open their own switch, and where necessary to apply train (automatic) brakes, stop and allow sufficient time to insure release of all brakes.

Conductor report to Superintendent, by wire, any failure to properly control train by air brakes and deliver to Car Inspector at first terminal list showing tonnage of each car in train. Car Inspector will add to list the piston travel of each car in train, as shown by test made before road engine is cut off, also result of three-minute test of all retainers. The list will then be forwarded to Superintendent by first mail.

The maximum tonnage per operative brake between Caliente and Mojave is 115 M's, Mojave and Saugus 120 M's, Searles and Garlock 150 M's and Benton and Hammil 50 M's.

MISCELLANEOUS

1. Freight trains with twenty or more cars will detach engine when taking water except at the following stations:

All points on the Valley district
Caliente......Eastward trains
Woodford....Eastward trains
Lancaster....Eastward trains
Ravenna.....Westward trains
Lang.........Westward trains

Leading engine on freight trains descending grade must be detached while taking water at San Fernando.

In freight service with over 30 cars where it is necessary to make a short move to reach water or oil column, including that required to spot second engine of double header, locomotive must be cut off before spotting at column.

Water supply at Bealville, Marcel and Cameron is for emergency use only.

In taking water on freight trains with helper cut in, train will be cut ahead of first helper from head end and will back to point where it is to take water, except at Woodford where first helper spots at No. 3 water column. After stopping, train will be cut ahead of following helper.

4. Helpers will be handled as follows:

SUMMIT SWITCH: On 3 and 4 engine trains, after stopping, second helper take charge of air making movement. If 3 engine train, cut out first or head helper, then second helper. If 4 engine train cut out first helper, then third or rear helper, then second helper. Helper engines cutting out of eastward trains at Summit Switch enter wye from east leg.

ERIC: Under ordinary conditions let engine in on west leg of wye and back train to a coupling.

MOJAVE: Helpers will be coupled together on westward trains and placed ahead of caboose, taking into consideration rear end cars.

LANCASTER: Helpers will be coupled together on eastward trains and cut in ahead of caboose taking into consideration rear end cars.

VINCENT: On eastward trains road engine will stop to clear at east end, helpers will be cut out and used to shove rear of train to a coupling. When helpers go east of Vincent they will remain coupled in train until released. Unless otherwise instructed helpers will cut out at Vincent.

Should a stop be made short of a turnout at a point where helpers are to be cut out, cut will be made ahead of leading helper and train engine will pull head portion to clear, to prevent damage done by helper in shoving during short move.

In movement of light engines between Bakersfield and Mojave the number of engines coupled is restricted to four.

Two engines of "GS" type must not be coupled descending grades where curvature is 10 degrees or over.

For the purpose of pushing trains out of yards:

(a) No locomotive will be placed behind wooden underframe caboose or other wooden frame equipment.
(b) Locomotives weighing more than 235,000 pounds on the drivers will not be placed behind steel underframe cabooses.
(c) Air will not be coupled through the pusher engine.
(d) Yard engines regularly so used will be equipped with Russell-Jordan device to hold the coupler pin from dropping, thus making it unnecessary for employes to uncouple the pusher engine when cutting off.
(e) In no case shall the knuckle be removed, or closed, or cutting lever temporarily fastened in release position on a pusher engine, as means of preventing coupling being made.
(f) Unless local conditions require, it will not be necessary to stop trains to detach pusher engines.

In helper service:

(a) No helper engine will be placed behind wooden underframe cars or cabooses.
(b) Locomotives weighing more than 235,000 pounds on the drivers will not be placed behind steel underframe cabooses.
(c) In no case will more than one helper engine be placed behind steel underframe cabooses.
(d) When helper engines are used in rear of freight trains, C and lighter class must be placed behind heavier class except between Burbank Jct. and Vincent, C and heavier class engines must be placed ahead of AC class engines.
(e) Helper engines on freight trains must be placed in rear through Tunnel 25.
(f) Engines with cars must not be cut off or coupled to a train while same is in motion.
(g) Engines must not be cut off head end of trains while same are in motion.
(h) When helper engine is coupled behind caboose, angle cocks must not be turned and hose separated while train is in motion.

5. Engines will not be left on No. 1 track at Tehachapi while crews are eating. When engines are left with no one attending, the reverse lever will be left on center, cylinder cocks will be left open, independent brake valve or straight air valve will be left in service position, noting amount of brake cylinder pressure before leaving the engine. No member of crew will leave their engine before engine has come to rest, and when engine or engines are left alone, tank brakes should also be set in addition to independent brakes.

This will apply at other points where similar conditions exist.

7. Engines heavier than Consolidation must not leave main track between Mojave and Searles, except at sidings Neuralia, Rand, Goler and Cantil. This does not confer time table authority. When holding main track comply with rule 99 in protecting head rights if necessary.

Should both trains have restricted power, train using siding must move slowly and cautiously using every precaution to avoid accident.

P-8, P-10 and heavier locomotives must not be used between Famoso and Fresno on Porterville Line or between Exeter and Goshen Jct.

8. At points where engine is to be changed, or cars set out or picked up on passenger trains, rear brakeman will open steam valve on rear of train at station one-mile board and engineman will shut off the steam one half mile from station.

10. Tracks at following stations must not be used by engines larger than Consolidation. Spurs at Bena, Caliente, Wahoo quarry, Tunnel water spur, Waltz powder spur, Elayon oil spur.

Engines heavier than F class must not use track serving Union Supply Co. or Graham spur or spur paralleling main tracks west of derail at Roscoe, or the transfer track at San Fernando beyond a point 300 feet beyond the switch points.

Engines must not use Consolidated Rock tracks, Roscoe, beyond derails west of Radford Ave.

When switching the west end of Saltdale, with F class engines, use sufficient number of cars to prevent engine from going beyond frog.

Switching movement from spurs on heavy grades should be accomplished in a manner to make it impossible for cars to run out on main track. This can be done by stopping train between switches and by switching from spur track to train, leaving switch lined for spur track until work is completed. Do not switch cars into a siding on grade where such siding is unprotected by derail. Do not handle cars ahead of engine descending grades when practicable to avoid same. Whenever possible, when switching on heavy grades, engine should be kept on down hill side of cars being handled, or such switching moves be made against a derailer.

17. No sanding of engines permitted between Tunnels 18 and 19.

20. Handling of freight cars in trains behind passenger cars carrying passengers prohibited. The term "freight car" does not include a baggage, express or mail car, or a caboose.

Baggage, express, mail, refrigerator or other head end cars must not be handled on rear of passenger trains unless trainmen can pass through them.

Pennsylvania Ry. refrigerator cars must not be handled coupled together in freight trains.

23. Following will govern the handling of switches for the center sidings at Warren and Monolith:

Westward Trains—Heading in.

Switches will be handled in following sequence:

1. Westward main track switch.
2. Center siding switch.
3. Derailing switch.

After Train is in siding.

1. Westward main track switch.
2. Derailing switch.
3. Center siding switch.

Eastward Trains.

Switches will be handled in normal manner.

27. In addition to one engineer, one fireman and one conductor, each steam freight, mixed or work train must have two or more brakemen, as noted below, if more than 4 trains are operated each way per day.

Grade	No. Cars in Train	No. Brakemen
1% or under	49 or less	2
"	50 to 75 inclusive	3
"	76 to 100 "	4
"	101 to 125 "	5
1% to 1½%	49 or less	2
"	50 to 62 inclusive	3
"	63 to 87 "	4
"	88 to 112 "	5
"	113 to 125 "	6
Over 1½%	49 or less	2
"	50 to 57 inclusive	3
"	58 to 72 "	4
"	73 to 87 "	5
"	88 to 102 "	6
"	103 to 117 "	7
"	118 to 125 "	8

The following are grade maximums on the San Joaquin division:

1% or under	1% to 1½%	Over 1½%
Fresno-Bakersfield	Bakersfield-Ilmon	Ilmon-Tehachapi
Clovis Branch	Tehachapi-Eric	Eric-Mojave
Riverdale Branch	Mojave-Rosamond	Palmdale-Saugus
Coalinga Branch	Success Branch	Owenyo Branch
Visalia Branch	Owenyo-Keeler	McKittrick Branch
Stratford Branch		Benton-Laws
Richgrove Branch		
Arvin Branch		
Rosamond-Palmdale		
Laws-Owenyo		

28. Train movements on Richgrove Branch will not be authorized by train orders. Trains using this Branch will do so under flag protection.

Flagman will be left at Richgrove with written instructions on Form CS 2511 regulating the movement of other trains desiring to use this track.

SPEED RESTRICTIONS

Maximum speed of any passenger train must not exceed 50 miles an hour except as otherwise provided for:
Maximum speed of any freight or mixed train must not exceed 35 miles an hour except as otherwise provided for:
Speed Restrictions in Miles Per Hour, Will Apply as Follows:

		PASSENGER					FREIGHT			LIGHT ENGINES RUNNING FORWARD			
Page No.	TERRITORY	Maximum	With E T-26, 32, 37, 40 P A Motors	With M T 1, 2, 8, 9, 23, 28, 31, 36, 57, 58 MK 5, 6, 7, 8, 9	With Mt. GS Sta. Fe Mt. type	With C 2 to 10 Incl C 18 to 29 Incl. F AC 4, 5, 6, MM, AM SP	Freight and Mixed Maximum	Engines Backing With or Without Cars	Yard Engines S-SE Type	E T 26, 32, 37, 40 P A Mt. 1, 2, 3, 4, 5 Santa Fe Mt. type	M T 1, 2, 8, 9, 23, 28, 31, 36, 57, 58 C 2 to 10 incl. C 18 to 29 Incl. MK 5, 6, 7, 8, 9	F SP GS Santa Fe 3800 type	C 12, 15, 17 TW MK 2, 4, 10 AC MM AM
2	Biola Jct.-Calwa Tower, except	50	50	50	50	45	40	30	20	40	35	35	30
2	F. T. Co., Crossing, Olive Ave., Fresno	20	20	20	20	20	20	20	20	20	20	20	20
2, 3, 7	In City Fresno along or across street crossings	20	20	20	20	20	20	12	12	12	12	12	12
2	Calwa Tower—East switch Oil Jct. except	60	60	50	60	40	40	30	20	40	35	35	30
2	A. T. & S. F. Ry., crossing at Tulare Tower	40	40	40	40	40	40	30	20	40	35	35	30
2, 4	East switch Oil Jct.-One mile east Kern Jct., except	35	35	35	35	35	20	20	20	20	20	20	20
	over street crossings in Bakersfield	20	20	20	20	20	20	20	20	20	20	20	20
3	Fresno—Famoso, except	45	45	45			30	20	20	30	30	30	30
3	On curves at Mile Post 218.54 and 218.74	35	35	35				20	20	20	20	20	20
3	On curve west of Orris	35	35	35				20	20	20	20	20	20
4	One mile east Kern Jct. - one mile west Ilmon	50	50	50	50	45	40	30	20	40	35	35	30
4	One mile west Ilmon - West Switch Tehachapi	30	30	28	30	28	20	15	20	25	25	20	20
4	West Switch Tehachapi - One Mile east of Cameron	50	50	50	50	45	35	30	20	35	35	35	30
4	One mile east of Cameron—Mojave, except	45	45	45	45	45	20	20	20	25	25	25	25
	Westward freight trains Mojave to one mile east of Cameron						35						
4, 5	Mojave Yard, between Standard Oil switch and extreme east switch	15	15	15	15	15	10	10	15	15	15	15	15
5	Mojave - Palmdale	55	55	50	55	45	40	30	20	40	35	35	30
5	Palmdale - Mile Post 417, except	50	50	50	50	45	40	30	20	40	35	35	30
5	Westward freight trains M. P. 417 to Palmdale						22						
5	Mile Post 417-Lang	30	30	28	30	28	20	15	15	25	25	20	20
5	Lang-Saugus	30	30	28	30	28	22	15	15	25	25	22	22
5	Saugus - Burbank Jct., except	50	50	50	50	45	35	30	20	35	35	35	30
5	East switch Saugus and West Portal tunnel 25	40	40	40	40	40	25	25	20	25	25	25	25
5	West Portal tunnel 25 and M.P. 458.14	30	30	30	30	30	20	20	20	20	20	20	20
5	M.P. 458.80 - 458.94	40	40	40	40	40	25	25	20	25	25	25	25
	M.P. 458.14 - 471.60 (eastward frt. trains only)						25						
5	Burbank Jct. {Crossover west of tower	30	30	30	30	30	20	20	30	30	30	30	30
	Crossover east of tower	35	35	35	35	35	20	20	20	20	20	20	20
6	Armona-Crump, except	25					25	15	20	25	25		
6	Over trestle at M.P. 267.3	15					15	15	15	15	15		
6	Hardwick-Goshen Jct.	25					25	15	20	25	25		
6	Goshen Jct.-Exeter, except	40					30	15	20	30	30		
6	On curve at Goshen Jct. and curve at Ambler	30					20	15	20	20	20		
6	Ingle - Hardwick, except	20					20	15	20	20	20		
6	Mile Post 219 - Kings River Bridge	20					20	15	15	15	15		
6	Rossi-M.P. 239.4	25					25	12	20	25	25		
6	Mile Post 239.4 - Stratford	12					12	12	12	12	12		
7	Fresno-Gordon, except	25					25	15	20	25	25		
7	On curves at Barton and Maltermoro	20					20	15	15	20	20		
7	Over Fresno Interurban tracks, Las Palmas	15					15	15	15	15	15		
7	Gordon-Friant	20					20	15	15	20	20		
3	Porterville-Clavicle-Pernu, except	15					15	15	15	15	15		
3	On curves, Success and Pernu branches	12					12	12	12	12	12		
3	Richgrove-Jovista, except	25					25	15	20	25	25		
3	On curves, Richgrove branch	15					15	15	15	15	15		
7	Kern Jct.-M.P. 354½	25					25	15	20	25	25		
7	Mile Post 354½-Olig, except	20					20	15	15	20	20		
7	Mile Post 354-Olig, with large loaded oil cars						15	15	15	15	15		
8	Mojave-Owenyo, except	30					30	20	20	30	30		
	F-4&F-5 engines-Mojave-Searles						25	20	20	20	25		
8	Over west siding switch, Owenyo	10					10	10	10	10	10		
8	Benton - Laws	20					20	15					
8	Laws - Keeler	30					30	15					

Narrow gauge engines running forward must not exceed twenty miles per hour.

Speed of 60 miles per hour is permitted gas-electric motor car trains on main track between Fresno and Goshen Jct.

SPEED OF TRAINS REGULATED BY ORDINANCE THROUGH CITY LIMITS

Page	STATION	Passenger	Freight	Running Backward
2-3-7	Fresno, along or across street crossings	20	20	12
2	Fowler, between 6 A. M. and 9 P. M.	30	30	30
2	Selma, between 5 A. M. and 11 P. M.	30	30	30
2	Kingsburg, between 6 A. M. and 9 P. M.	30	30	30
2	Tulare, between 5 A. M. and 11 P. M.	20	20	20
3	Reedley, between 5 A. M. and 11 P. M.	20	20	20
3	Exeter, between 5 A. M. and 11 P. M.	20	20	20
3	Lindsay, between 5 A. M. and 11 P. M.	20	20	20
5	San Fernando over street crossings east and west of station	25	25	25
6	Armona, Lake Street Crossing	20	20	20
6	Visalia	15	15	15

At Fowler, Selma and Kingsburg it is lawful to increase speed to 40 M.P.H. after locomotive has passed last crossing within city limits in direction train is moving.

SPEED RESTRICTIONS

Speed restrictions for engines are shown in speed table; however, attention is called to the following maximum speeds at which tenders may be operated subject to restrictions imposed locally:

Tenders having water capacity, 7,000 gallons or less, except classes 70-R-1 and 70-SC-1, maximum speed 50 miles an hour.

Engines operated coupled tender to tender must not exceed speed permitted for light engines of that class running backwards.

Maximum speed of disabled engines hauled in train, or running under own steam, must not exceed:

When pilot removed	20 M.P.H.
When main rod only removed	30 M.P.H.
When side rod only removed	30 M.P.H.
When both main and side rods removed	20 M.P.H.
When hauled in train and all rods are on	30 M.P.H.
GS engines	15 M.P.H.
SP 1, 2 and when inside main rod removed	30 M.P.H.
S and SE engines and all other classes of engines when not equipped with engine trucks	20 M.P.H.
When all weight has been removed from any one pair of drivers on an engine, speed must not exceed	20 M.P.H.
When all weight has been removed from one wheel of any pair drivers on an engine, speed must not exceed	30 M.P.H.

F, SP, Santa Fe 3800 and AC class engines must not exceed 8 M.P.H. over switch turnouts, crossovers and slip switches.

When engines 3681, 3727, 4111, 4114, 4115, 4116, 4117, 4123, and 4124 are used in passenger service they are permitted maximum passenger speed between Bakersfield and Burbank Jct.

When Santa Fe 3800 class engines are used in passenger service they are permitted maximum speed of 45 miles per hour between one mile east of Kern Jct. and one mile west of Ilmon: also between west switch Tehachapi and one mile east of Cameron.

When used in passenger service, AC 4 and 5 engines and Santa Fe 3700 and 3800 class engines are permitted maximum speed of 30 miles per hour between one mile west of Ilmon and west switch Tehachapi, also between Mile Post 417 and Saugus.

Engines not shown in speed table must not exceed freight speed except MC engines must not exceed 20 miles per hour between Lang and Saugus.

When interlocking signals at Caliente, Allard, Bealville, Woodford and Marcel indicate proceed trains may run at speed and through other interlocking plants with caution.

Trains must not exceed 30 miles per hour through limits of interlocking plant at Calwa Tower.

Trains must not exceed 6 M.P.H. over wye and packing house tracks at Locans, 10 M.P.H. through main track switch Hardwick, 10 M.P.H. Pinedale to Mill site formerly Minerals and Western, 10 M.P.H. on pocket track Saugus extending west from Westward siding and 8 M.P.H. on spur leading to quarry from wye at Beneme.

Trains must not exceed 10 M.P.H. through sidings, over crossovers and turnouts, except oil buffer spring switches. See list of such switches on page 10.

Trains handling relief outfit must not exceed 25 miles per hour between Fresno and Bakersfield, Fresno and Famoso via Sanger, Armona and Exeter, Bakersfield and one mile west of Ilmon, one mile west of Tehachapi and one mile east of Cameron, Mojave and Mile Post 417, Saugus and Burbank Jct., and 20 miles per hour between one mile east of Cameron and Mojave, and must not exceed 15 miles per hour over other track. Where freight speed is less be governed thereby.

When locomotive Cranes, of the type SPMW 3636, are placed in trains, they must be handled with the heavy end forward, except where it is impossible to turn them, in which case they must be turned at the first available point. When handled with light end forward extreme care must be exercised and speed of 25 M.P.H. not exceeded.

All cars moved in passenger trains must be equipped with steel-tired or all-steel wheels. When cars not so equipped are offered for movement, they will be handled in freight trains—passengers, if any, to move on passenger train.

Trains consisting of engine and caboose only should be considered freight trains and speed restricted accordingly.

Trains carrying cabooses equipped with cast iron wheels must not exceed 40 miles per hour.

Wooden passenger-carrying cars, wooden baggage, express and other head-end cars, unless equipped with steel center sills and steel platforms, must not be used in passenger service except upon authority.

Speed of trains handling such cars must be restricted as follows:

When consist includes not more than three wooden passenger-carrying cars, maximum speed must not exceed 50 miles per hour.

When consist includes more than three wooden passenger-carrying cars, maximum speed must not exceed 40 miles per hour.

If consist of train includes wooden and steel passenger-carrying cars, wooden cars must be kept together and handled on the rear.

SPEED TABLE

Speed per Hour	1 Mile in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.	Speed per Hour	1 Mile in Min. Sec.
6	10.00	25	2.24	39	1.33	53	1.08
8	7.30	26	2.18	40	1.30	54	1.06
10	6.00	27	2.13	41	1.27	55	1.05
12	5.00	28	2.08	42	1.25	56	1.04
15	4.00	29	2.04	43	1.23	57	1.03
16	3.45	30	2.00	44	1.21	58	1.02
17	3.31	31	1.56	45	1.20	59	1.01
18	3.20	32	1.52	46	1.18	60	1.00
19	3.09	33	1.49	47	1.16	61	0.59
20	3.00	34	1.45	48	1.15	62	0.58
21	2.51	35	1.42	49	1.13	63	0.57
22	2.43	36	1.40	50	1.12	64	0.56
23	2.36	37	1.37	51	1.10	65	0.55
24	2.30	38	1.34	52	1.09		

STRUCTURES LESS THAN STANDARD CLEARANCE

Mile Post	Location	Description
	Fresno-Saugus—Main Track	
205.5	Fresno Shop Yard	Water tank spout....Side
205.5	Fresno	Pullman shed....Side
220.7	Selma	Libby-McNeill & Libby....Side
313.2	Bakersfield, east end Round House lead	Water column....Side
313.2	Bakersfield, roundhouse turnout tracks	Sandhouse....Side and Overhead
313.2	Bakersfield	P. F. E. ice dock....Side
313.2	Bakersfield	Pullman shed....Side
313.2	Bakersfield	Coal house at store....Side
313.2	Bakersfield	Air pump house....Side
313.2	Bakersfield	Gravel Bunkers, Gravel Pit....Side and Overhead
434.8	East of Russ	Tunnel 17½....Overhead
439.5	East of Lang	Tunnel 20....Overhead
440.1	East of Lang	Tunnel 21....Overhead
441.5	East of Lang	Tunnel 22....Overhead
445.3	East of Humphreys	Tunnel 23....Overhead
449.7	East of Honby	Tunnel 24....Overhead
	Fresno-Famoso via Porterville	
205.5	Fresno	S. J. L. & P. Corp. plant....Side and Overhead
225.3	Fargo	Southern Pacific Freight Shed....Side
257.4	Exeter	Water tank spout....Side
	Goshen Jct.-Coalinga-Engle	
229.1	Armona	Water tank spout....Side
268.4	Coalinga	Water tank spout....Side
	Fresno-Friant	
205.5	Fresno	Alley Drill Track, Fulton....Side
217.4	Clovis	Water tank spout....Side
	Bakersfield-Olig	
345.4	Kilowatt	Power House....Overhead and Side
	Mojave-Owenyo	
402.5	Cantil	Water tank spout....Side
426.8	West of Searles	Tunnel 29....Overhead
484.1	Haiwee	Water tank spout....Side
523.0	Owenyo	Highline trestle on Calif. Alkali Co. Spur....Overhead and Side
	Saugus-Burbank Junction	
453.7	Elayon	Standard Oil Co. filling racks....Side
465.6	Wahoo	Consolidated Rock Co. rock crusher....Side and Overhead
465.6	Wahoo	Consolidated Rock Co. piles of rock....Side
467.9	Roscoe	Consolidated Rock Co. bunkers....Both Sides
467.9	Roscoe	Consolidated Rock Co. sand piles and switch stands....Side

Employes are warned that it is dangerous to ride on top or sides of cars at above-mentioned points. Employes must guard against coming in contact with overhead wires or their connections.

AVERAGE TARE WEIGHTS OF PASSENGER TRAIN CARS

CLASS	NOT AIR-CONDITIONED		AIR-CONDITIONED	
	All-Steel	Steel Under-frame	All-Steel Cooling Season	All-Steel Heating Season
Baggage—60 ft.	93,070			
“ —66 ft.	127,610			
“ —70 ft.	122,620			
“ —70 ft. (With Auto. End Door)	125,800			
“ —(Dynamo)	98,730			
“		87,120		
Baggage & Mail—60 ft.	103,620			
“ “ “ —69 ft.	124,760			
“ “ “ —70 ft.	129,140			
“ “ “		103,590		
“ “ Passenger	108,675	112,640		
Express Refr.—N. P. Ry.		74,000		
“ “ —A. R. E. No. 40-154		78,000		
“ “ — “ “ 153-224		89,000		
“ “ — “ “ 500-506		110,000		
“ “ — “ “ 1101-1175		85,000		
“ “ —P. F. E. “ 500-799		83,000		
Express, Horse	133,050			
Postal	112,120			
Postal Storage—40 ft.	74,530			
“ “ —60 ft.	105,120			
Assembly (ACW)			168,950	168,950
Club......(ACI)	146,210	122,300	172,200	164,700
Official....(NAC)	170,700	155,370		
“ —Cars 107-128(ACW)			182,800	182,800
“ —Cars 140-141(ACW)			195,040	195,040
Chair—60 ft. (ACI)	100,620		138,000	132,000
“ —72 ft. (ACI)			165,000	157,800
“ —72 ft. (ACW)			158,700	158,700
“ —Streamline—Single (ACS)			120,900	104,500
“ — “ —Art. (ACS)			205,400	172,600
“ —74 ft. (ACI)			180,915	173,125
“ —74 ft. (ACS)			197,944	181,600
Coaches—60 ft. (ACI)	98,130		136,100	130,100
“ —70 ft. (ACI)	137,640		157,800	151,000
“ —70 ft. (ACW)	137,640		151,000	151,000
“ —72 ft. (ACI)			164,500	157,400
“ —72 ft. (ACW)			153,500	153,500
“ —73 ft. 6 in. (ACW)			163,000	163,000
“ —73 ft. 6 in. (ACI)			168,500	161,200
“ —72 ft. (Interurban)	120,000			
All-Day Lunch—Chair	105,970			
“ “ —Coach	103,875			
Cafe-Coach (ACI)		138,600	155,700	149,000*
Cafe-Lounge (ACI)	148,950	161,200	173,500	166,000
“ (ACW)			156,000	156,000
Daylight—(12-car train) (ACS)			1,344,080	1,147,280
“ —Comb. Baggage & Coach (ACS)			118,940	102,540
“ —Art. Chair (ACS)			203,640	170,840
“ —Tavern (ACS)			130,850	114,450
“ —Diner (ACS)			129,860	113,460
“ —Parlor (ACS)			115,880	99,480
“ —Parlor-Observation (ACS)			118,690	102,290
Diner—70 ft.		135,930		
“ —72 ft.	155,330	146,930		
“ —77 ft. (Arch Roof) (ACI)	156,000		170,100	162,700
“ —77 ft. (“ “) (ACW)			162,950	162,950
“ —77 ft. (Clere Story Roof) (ACW)		165,530	169,450	169,450
“ —77 ft. (“ “ “) (ACM)			189,581	173,836
“ —79 ft. (NAC)	169,100			
“ —80 ft. (Clere Story Roof) (ACM)			201,323	184,700
Lounge (“ “ “) (ACI)			189,800	181,630
“ (Arch Roof) (ACI)			167,500	160,300
“ (“ “) (ACW)			164,980	157,780
Observation—75 ft. (ACI)	154,400		169,185	161,900
“ —77 ft. (ACI)			194,543	186,166
“		141,870		
Pullman—Observation (ACI)	160,800	153,000	177,314	169,200
“ — “ (ACM)	160,800	153,000	192,300	176,300
“ — “ Lounge (ACM)	171,200		194,900	178,900
“ — “ “ (ACI)	171,200		187,682	179,600
“ —Bedroom (ACI)	167,600		183,920	176,000
“ — “ (ACM)	167,600		195,800	179,800
“ —Sleeper (ACM)	163,100		191,100	175,100
“ — “ (ACI)	163,100		180,075	171,500
“ —Tourist (ACM)	153,000		185,200	169,200
“ — “ (ACI)	153,000		168,663	161,400
Rail, Gas-Electric—400 H.P.	158,400			
“ “ “ —600 H.P.	167,200			

*Steel underframe.

CODE:—NAC—Non-Air Conditioned.
—ACI —Air-Conditioned—Ice System.
—ACM—Air-Conditioned—Mechanical System.
—ACW—Air-Conditioned—Waukesha System.
—ACS —Air-Conditioned—Steam Ejector System.

LIST OF SURGEONS

NAME	TITLE	LOCATION
Dr. C. A. Walker	Chief Surgeon and Manager	San Francisco, Cal.
Dr. J. D. Morgan	District Surgeon	Fresno, Cal.
Dr. Chas. A. James	District Surgeon	Fresno, Cal.
Dr. D. H. Trowbridge, Jr.	Oculist	Fresno, Cal.
Dr. Wayne Hunt	Aurist	Fresno, Cal.
Dr. O. B. Doyle	Asst. District Surgeon	Fresno, Cal.
Dr. J. D. Wagner	District Surgeon	Selma, Cal.
Dr. W. H. Nielson	District Surgeon	Fowler, Cal.
Dr. E. C. Halley	District Surgeon	Sanger, Cal.
Dr. G. A. Hawkins	District Surgeon	Reedley, Cal.
Dr. R. E. Cronemiller	District Surgeon	Exeter, Cal.
Dr. Edgar Brigham	District Surgeon	Dinuba, Cal.
Dr. O. A. Olson	District Surgeon	Kingsburg, Cal.
Dr. M. S. McMurtry	Emergency Surgeon	Clovis, Cal.
Dr. R. N. Fuller	District Surgeon	Tulare, Cal.
Dr. J. Seiberth	District Surgeon	Pixley, Cal.
Dr. Henry A. Rivin	District Surgeon	Delano, Cal.
Dr. W. B. Smith	District Surgeon	Delano, Cal.
Dr. F. R. Guido	District Surgeon	Visalia, Cal.
Dr. C. T. Rosson	District Surgeon	Hanford, Cal.
Dr. C. T. Rosson, Jr.	Asso. Dist. Physician & Surgeon	Hanford, Cal.
Dr. J. C. Drake	District Surgeon	Kerman, Cal.
Dr. Geo. A. Meracle	Emergency Surgeon	Caruthers, Cal.
Dr. Wm. P. Byron	District Surgeon	Lemoore, Cal.
Dr. Bryson E. Cox	District Surgeon	Coalinga, Cal.
Dr. P. S. Barber	District Surgeon	Porterville, Cal.
Dr. W. W. Tourtillott	District Surgeon	Porterville, Cal.
Dr. J. R. Fillmore	Emergency Surgeon	Strathmore, Cal.
Dr. H. D. R. Shoemaker	District Surgeon	Lindsay, Cal.
Dr. H. W. Bell	Division Surgeon	Bakersfield, Cal.
Dr. C. L. Moore	District Surgeon	Bakersfield, Cal.
Dr. J. M. Kirby	Consulting Physician & Surgeon	Bakersfield, Cal.
Dr. R. M. Jones	Oculist and Aurist	Bakersfield, Cal.
Dr. Harold L. Schlotthauer	District Surgeon	Tehachapi, Cal.
Dr. Phil J. Vogel	District Surgeon	Mojave, Cal.
Dr. M. A. Williamson	District Surgeon	Lone Pine, Cal.
Dr. Howard W. Dueker	Acting Dist. Phys. & Surgeon	Lone Pine, Cal.
*Dr. George D. Shultz	District Surgeon	Lone Pine, Cal.
Dr. Harvey Crook	District Surgeon	Bishop, Cal.
Dr. Thomas A. Drummond	Emergency Surgeon	Randsburg, Cal.
Dr. W. R. Senseman	District Surgeon	Lancaster, Cal.
Dr. N. H. Snook	District Surgeon	Palmdale, Cal.
Dr. E. C. Innis	District Surgeon	Saugus-Newhall, Cal.
Dr. R. W. Johnson	District Surgeon	San Fernando, Cal.

*Subject to call to Independence, Cal., at all times.

Note.—Emergency Surgeons should be summoned only for temporary treatment when prompt attention is required and when patients cannot be sent to or await arrival of Division or District Surgeon.

LOCATION OF HOSPITAL STRETCHERS

FRESNO
- BAGGAGE ROOM
- STORE ROOM
- RELIEF TRAIN

GOSHEN JUNCTION

BAKERSFIELD
- BAGGAGE ROOM
- EMERGENCY HOSPITAL
- RELIEF TRAIN
- CAR SHOPS
- MACHINE SHOPS

TEHACHAPI

MOJAVE
- BAGGAGE ROOM
- CAR SHOPS

SAUGUS
EXETER
PORTERVILLE
COALINGA
HANFORD
OWENYO
KEELER
LAWS

LOCATION OF HOSPITALS

GENERAL HOSPITAL	SAN FRANCISCO
EMERGENCY HOSPITAL	BAKERSFIELD
WHITE MEMORIAL HOSPITAL	LOS ANGELES

RATING OF LOCOMOTIVES--SAN JOAQUIN DIVISION

In M's of 1000 Lbs. Back of Tender.

Nominal Class	Official Class	Engine Numbers	Boiler Pressure	Bakersfield and Fresno via Goshen Jct., Bakersfield and Kerman via Armona	Famoso and Fresno, via Exeter	Rosamond and Lancaster	Bakersfield to Rosamond	Lancaster to Saugus	Saugus to Lancaster	Rosamond to Bakersfield	Los Angeles to Saugus	Saugus to Los Angeles
M-4	M-63 20/28 135-S	1617 to 1713	190	4150	3300	4150	580	750	680	680	730	820
M-4	M-63 20/28 126	1617 to 1713	190	3950	3150	3950	580	740	670	670	730	820
M-8	M-63 21/28 159-S	1721 to 1803	200	4850	3800	4850	700	900	820	820	930	1000
M-6	M-63 21/28 150-S											
M-9	M-63 21/28 150-S	1806 to 1822	210	5100	4050	5100	760	970	890	890	990	1100
M-11	M-63 21/28 153-S	1831	210	5100	4050	5100	780	1000	910	910	990	1100
M-11	M-63 22/28 153-S & 162-SF	1832 to 1835	200	5300	4200	5300	780	1000	910	910	990	1100
T-23	T-63 21/28 156-S	2301 to 2310	210	5050	4000	5050	730	940	850	850	930	1030
T-23	T-63 21/28 163-SF											
T-28, 31	T-63 22/28 162-S	2311 to 2362	210	5550	4400	5550	820	1050	950	950	1050	1200
T-32	T-69 23/28 174-S	2363 to 2370, 2372 to 2384	210	5700	4500	5700	860	1050	990	990	1050	1200
P-1, 3, 5	P-77 22/28 141-S	2400 to 2452, 2459, 2460	210	4600	3600	4600	630	800	740	740	800	890
P-4	P-77 23/28-155/B 58-SF	2400 to 2437	210	5000	3950	5000	690	870	800	800	900	1100
P-6	P-77 25/28 172-S	2453 to 2458	200	5650	4450	5650	810	1000	940	940	1000	1150
P-10	P-73 25/30 181-SF	2478 to 2483	200	6250	4950	6250	830	1100	980	980	1100	1250
P-10	P-73 25/30-183/B-63-SF	2484 to 2491										
C-9, 10	C-57 22/30 200-SF	2513 to 2599, 2698 to 2860	210	6100	4800	6100	900	1150	1050	1050	1200	1300
C-9, 10	C-57 22/30 194-S											
C-8	C-57 22/30 192-S											
C-5	C-57 22/30 187-S	2624 to 2679										
C-5	C-57 22/30 185-S	2680 to 2693										
A-6	A-81 22/28-127/B-64-SF	3000 to 3003	210	4400	3450	4400	600	750	690	690	700	800
A-3	A-81 20/28 112-S	3025 to 3040, 3043 to 3071	210	3600	2850	3600	450	580	530	530	550	630
A-3	A-81 20/28-116/B-59-S	3025 to 3040, 3043 to 3071										
Mk-5, 6	Mk-63 26/28 210-S	3241 to 3277	210	7800	6200	7800	1200	1500	1350	1350	1450	1600
Mk-5, 6	Mk-63 26/28 231-SF											
Mk-7, 8, 9	Mk-63 29/30 247-S & 257-SF	3300 to 3324	176	8550	6750	8550	1300	1650	1500	1500	1650	1850
F-4, 5	F-63 29½/32-306/B-61-SF	3668 to 3768	200	10,200	8050	10,200	1500	1950	1750	1750	2100	2300
F-5	F-63 29½/32-306/B-62-SF											
AC-1, 2, 3	AC-57 $\frac{22-22}{30}$ 441-SF	4000 to 4048	210	12,300	9750	12,300	1900	2450	2200	2200	2250	2450
AC-4	AC-63 $\frac{24-24}{32}$ 475-SF	4100 to 4125	235	16,000	12,700	16,000	2500	3200	2900	2900	3200	3500
AC-5	AC-63 $\frac{24-24}{32}$ 483-SF											
Mt-1,3,4,5	Mt-73 28/30-246/B-60-SF	4300 to 4376	210	8350	6600	8350	1150	1500	1350	1350	1550	1750
GS-1	GS-73 **27/30** 262/B-104-SF	4400 to 4415	250	9000	7050	9000	1200	1550	1400	1400	1600	1800
GS-2	GS-73 **27/30** 266/B-104-SF											
GS-3	GS-80 **26/32** 267/B-105-SF	4416 to 4429	280	9200	7250	9200	1250	1600	1450	1450	1650	1850
SP-1	SP-63 $\frac{25}{28-32}$ 316/B-60-SF	5000 to 5048	225	12,000	9500	12,000	1800	2350	2100	2100	2450	2700
SP-2, 3	SP-63 $\frac{25}{28-32}$ 317/B-61-SF											
Allowance for Empty and Underloaded Cars..		Less than 40 Ms.		6	6	6	3	3	3	3	3	3
		40 Ms. to 50 Ms.		3	3	3	0	0	0	0	0	0
		More than 50 Ms.		0	0	0	0	0	0	0	0	0

These ratings include the total weight of train, exclusive of engine and tender, which the different class of locomotives will haul in each direction between the stations shown.

CLASS "C"—Consolidation engine "M"—Moguls "Mk"—Mikado "E"—Eight-wheeler
"T"—Ten-wheelers "TW"—Twelve-wheelers "P"—Pacific Type

Example:—Consolidation engine having 57-inch drivers, Cylinders 22-inch diameter and 30-inch stroke, and weighing 187,000 pounds on Drivers: C-57 $\frac{22}{30}$ 187

MAIN LINES

SAN JOAQUIN DIVISION:

End Western Division to Goshen Jct.	C. P. Ry.	40.10	
End Western Division to Fresno	S. P. R. R.	0.52	
Goshen Jct. to Saugus	S. P. R. R.	210.18	
Fresno to Famoso via Exeter	S. P. R. R.	103.95	
Total main lines			354.75

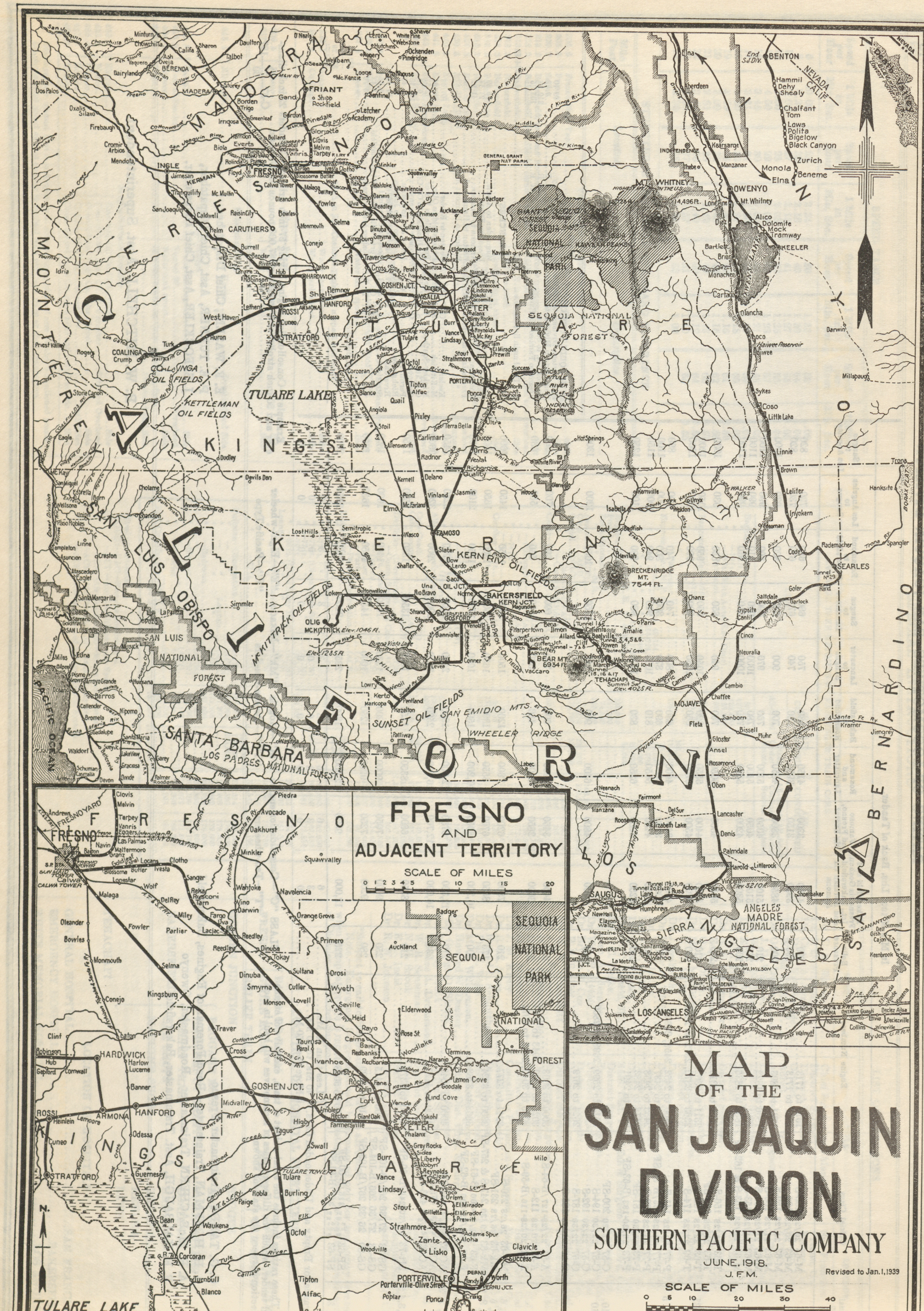
BRANCHES

Arvin	S. P. Co.	Magunden to Arvin		16.89	
Clovis	S. P. R. R.	Fresno to Friant		24.14	
Coalinga	S. P. R. R.	Armona to Crump		41.02	
Fresno Interurban	F. I. Ry. Co.	Barton to Hammond	2.29		
" "	"	Barton to Belmont Ave.	14.60	16.89	
Keeler	C. P. Ry.	Benton to Keeler		101.98	
McKittrick	S. P. R. R.	Bakersfield to Olig		49.61	
Minkler-Southern	A. T. & S. F.	Porterville to Ducor		12.53	
Oil City	S. P. R. R.	Oil Junction to Oil City		6.76	
Owenyo	C. P. Ry.	Mojave to Owenyo		143.15	
Pernu	S. P. Co.	Pernu Jct. to Pernu		1.48	
Richgrove	S. P. R. R.	Richgrove to Jovista		4.16	
Riverdale	S. P. R. R.	Ingle to Goshen Jct.		64.48	
Stratford	S. P. R. R.	Rossi to Stratford		8.26	
Success	S. P. Co.	Porterville (Olive St.) to Clavicle		13.43	
Visalia	S. P. R. R.	Goshen Jct. to Exeter		16.76	
Total Branches					521.54
Total San Joaquin Division					876.29

C. G. TANDY, Trainmaster, Fresno
A. H. HOFFMAN, Trainmaster—Road Foreman of Engines, Bakersfield
A. R. McEACHERN, Trainmaster—Roadmaster, Owenyo
F. E. KALBAUGH, Asst. Trainmaster, Bakersfield

E. F. WASEM, Chief Dispatcher,
P. E. TURNER, Asst. Chief Dispatcher,
J. S. FOCKLER, Asst. Chief Dispatcher.

B. W. MITCHELL, Asst. Superintendent.


FRESNO
AND
ADJACENT TERRITORY
SCALE OF MILES
0 1 2 3 4 5 10 15 20
CALIFORNIA
MONTEREY
FRESNO
MADERA
KINGS
TULARE
KERN
INYO
SAN BERNARDINO
LOS ANGELES
SAN LUIS OBISPO
SANTA BARBARA
NEVADA
PACIFIC OCEAN
TULARE LAKE
SEQUOIA NATIONAL PARK
SEQUOIA NATIONAL FOREST
SAN LUIS NATIONAL FOREST
LOS PADRES NATIONAL FOREST
ANGELES NATIONAL FOREST
SIERRA MADRE
GENERAL GRANT NAT PARK
MT. WHITNEY HIGHEST PT. IN THE U.S. 14,496 Ft.
BRECKENRIDGE MT. 7544 Ft.
BEAR MT. 6934 Ft.
TEHACHAPI Summit Sw. Elev. 4025 Ft.
COALINGA OIL FIELDS
KETTLEMAN OIL FIELDS
KERN RIV. OIL FIELDS
McKITTRICK OIL FIELDS
SUNSET OIL FIELDS
ELK HILLS
SAN EMIDIO MTS.
WHEELER RIDGE
FRESNO
MADERA
VISALIA
HANFORD
GOSHEN JCT.
EXETER
PORTERVILLE
BAKERSFIELD
KERN JCT.
MOJAVE
SEARLES
SAUGUS
LOS ANGELES
OWENYO
KEELER
BENTON
End S.J. DIV.
N.

MAP OF THE SAN JOAQUIN DIVISION

SOUTHERN PACIFIC COMPANY

JUNE, 1918.
J. F. M.

Revised to Jan. 1, 1939

SCALE OF MILES
0 5 10 20 30 40